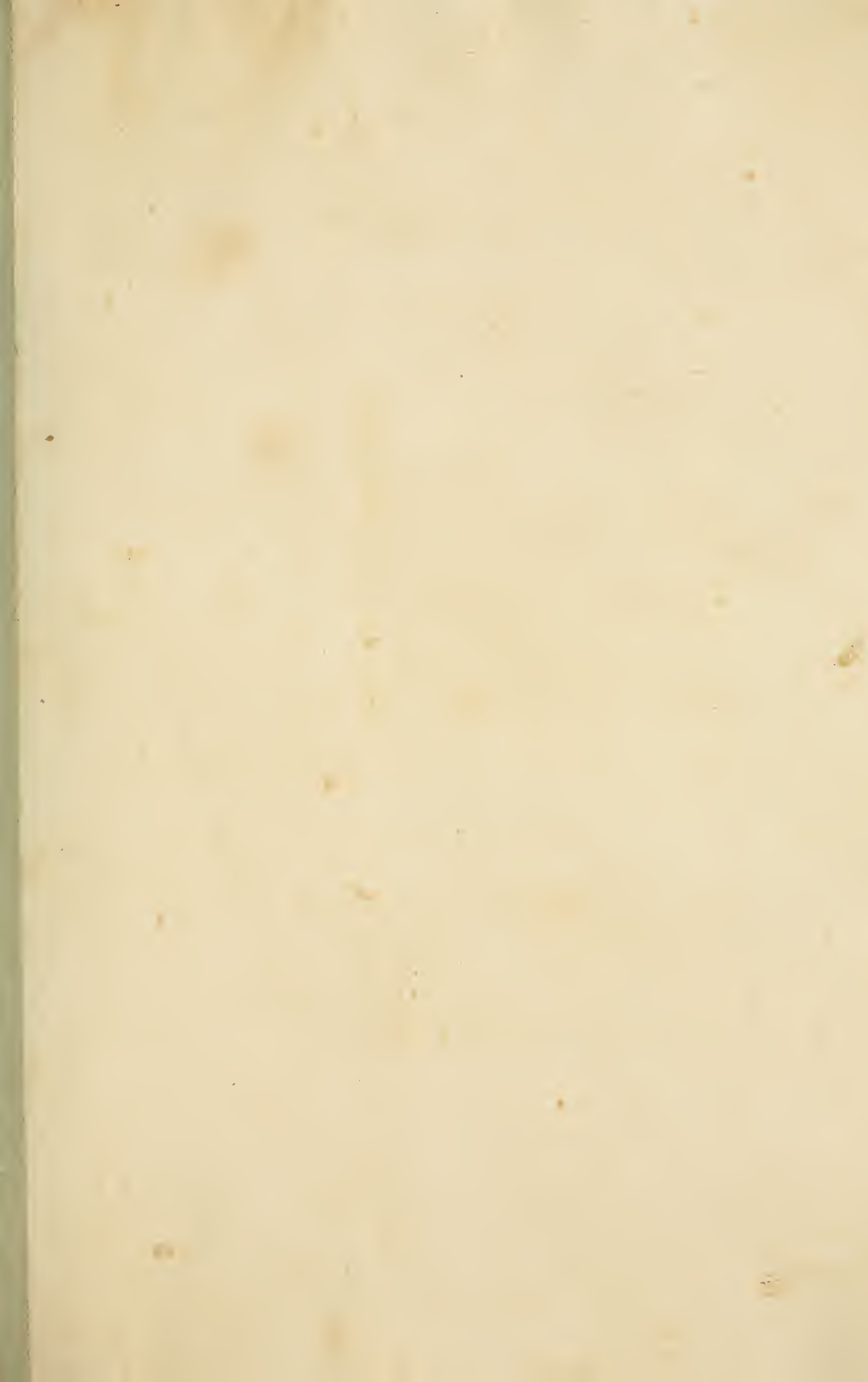


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A N T I E N T
M E T A P H Y S I C S.

V O L U M E T H I R D.

CONTAINING THE
History and Philosophy of Men.

WITH A
P R E F A C E,

CONTAINING THE
History of Antient Philosophy, both in Antient and Later Times.

A L S O, W I T H
T H R E E D I S S E R T A T I O N S Annexed,
Upon the following S U B J E C T S :

- I. Confirmations and Illustrations of what has been said in the preceding Volumes upon the Subject of the Principles of Sir Isaac Newton's Astronomy.
- II. An Inquiry into the Principle of the Motion of Bodies Unorganized.
- III. The Difference between *Man* and *Brute* further illustrated and explained, with additional Facts and Observations concerning the Oran Outang and Peter the Wild Boy.

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A M T I E X T

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O C C U R R E N C E

1871

History and Geography of Man.

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- II. An Inquiry into the Principle of the Motion of Bodies Unorganized.
- III. The Difference between *Man* and *Brute* further illustrated and explained, with additional Facts and Observations concerning the Oran Outang and Peter the Wild Boy.

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of all Analysis——Aristotle's Method of demonstrating his Logical Propositions——The Principles of the Syllogistical Art, however complicated, perfectly simple——Of the Utility of the Art——Now altogether unknown; and the Terms of it, though used, not understood——The Use of studying Porphyry's Introduction to Aristotle's Logic——Logic not the Invention of Aristotle——Several Reasons to prove this——History of Philosophy in later Times——The later Philosophers in Greece, such as the Stoics, added nothing to Philosophy——The Fate of it in Rome——Philosophy, by a strange Revolution, came back again to Egypt——Of the Alexandrian School, and the Founder of it Ammonius Saccas and his Successors——By another Revolution Philosophy came back again to Athens——Proclus the greatest Man of this new Athenian School——Philosophy came back again to Alexandria, under Ammonius Hermias——Hieroctes a famous Philosopher of the Alexandrian School——Some Observations upon the Philosophy of the Alexandrian School——They joined there the two Philosophies of Plato and Aristotle, and joined a third, viz. the Pythagorean——Of the Happiness these Alexandrian Philosophers enjoyed in the worst of Times——Philosophy continued in Constantinople after Alexandria was taken by the Saracens——Went to Italy after Constantinople was taken by the Turks——Its Progress there——Some valuable Greek Writers upon Philosophy lost, or preserved only in bad Latin Translations——From Italy Philosophy went to France——Of the Fate of the Greek Philosophy in England——Mr. Harris endeavoured to revive it there——Consequences of the Loss of this Philosophy, with respect to Sir Isaac Newton's Astronomy——Subjects of Speculation arising from the Study of Antient Philosophy——Subjects also of practical Knowledge applicable to the present Situation of this Country.

P R E F A C E.

THAT Man is fallen, and is not to rise again in this life, I propose, in this part of my Work, to prove to be a truth of History and Philosophy as well as of Religion. And, indeed, it gives me singular pleasure, to find that my Philosophy agrees so perfectly with Christianity; which, as it informs us that we are fallen, lets us know, at the same time, that it is not in this life that we are to be restored. The Gospel, therefore, promises no temporary rewards; but, on the contrary, prepares us for the greatest sufferings through the wickedness and folly of men; nor does it lead us to expect, that the state of human affairs shall ever be better than it was then, or has been at any time since; but directs our attention to the World to come, and only requires of us, that we should live here in such a way as to fit us for a better state there; and which, I am persuaded, will likewise make us happy here, to a certain degree at least, even in the greatest disorders that the vices, follies, and wickedness of other men can produce, either in public or private life. And not only in this does my Philosophy agree with Christianity, but in that mysterious Doctrine of it which stumbles unbelievers more than any other; I mean the Doctrine of the Trinity. For that there was from all eternity a procession or emanation of Deity, which in our Sacred Books is likened to generation, into two other Divine Beings; the one, the Principle of Intelligence by which all things were created; the other, the Principle of animation, by which all things are preserved in life and motion; and that these two principles are so essential

to Deity, as to make part of his Nature, and are therefore to be considered as making with him but one God, I hold to be a truth likewise of Philosophy, as much as of Religion*.

As all Philosophy, whether of Man or of Nature, must arise from facts, I have begun this Philosophy of Man with his History, whereof the Facts here collected are the result of enquiries that I have been carrying on for more than twenty years. During which time I have been studying History, not so much with a view to the history of any particular Nation, as of the whole Species; and as the

* This is Plato's doctrine of the Trinity, shortly mentioned by himself in a letter to Dionysius the Tyrant, but explained at great length by his Commentators, as Eusebius has informed us. *Præparatio Evang.* Lib. iv. Cap. 13. *et seq.* And Proclus, who was so much a Platonic, that he was surnamed the Διαδοχός, or Successor of Plato, has laid it down in words as express as can be. In *Timæum*, Lib. ii. p. 82, and p. 93. And further he says, that it was likewise the doctrine of Pythagoras, *Ibid.* p. 94. Eusebius, in the above-mentioned Book, Cap. viii. thinks that Plato learned it from some Jews that he might have seen in Egypt, when he was there; but I confess I think this is not probable; and it is much more likely that he learned it from those who taught it Pythagoras, I mean the Egyptian Priests; and if there were any doubt in the matter, it is made perfectly clear by sundry passages which St. Cyrillus has preserved to us from ancient Egyptian theological Books, called by him ἐρμῆαι α, where the doctrine of the Three Persons of the Trinity is as clearly laid down as in the Gospel of St. John, and his first general Epistle. See Cyrillus' Answer to the Emperor Julian; and there is a passage quoted both by Suidas and Codrenus from the Books of Hermes Trismegistus, in which the Three Persons are designed under the very names they bear in our Sacred Books; and the creation of the world by the Second Person, described almost in the words of Moses. At the same time I believe with Eusebius, that this doctrine of the Trinity was known to the Jews. See what I have further said on this subject. *Origin of Language*, Vol. I. p. 7: 2d Edit. *Metaph.* Vol. I. p. 167. and in this Vol. p. 22.

If I live to carry on the Ancient Philosophy to Theology, I will explain this subject further, and shew, from the analogy of Nature, that there must be such a procession from the first Principle; and that it is not more mysterious than the Emanation of All Things from that Principle.

the first Stage of the Progession of Man is not the subject of what is commonly called *History*, I have been at great pains to collect Facts concerning that state from Travellers both dead and living, and to compare them with the Facts related by ancient Authors; and I find such a wonderful conformity betwixt them, as I have observed in many instances, that I have as little doubt of that part of the History of Man, as of any period of his civil History. The Reader, though he be not inclined to Philosophy, will be pleased to read these Facts; nor will he like them the worse that they are arranged under certain heads, and applied to prove some general propositions. For my own part, I set no value upon any Facts either of the History of Nature or of Man, that do not tend to establish some System of Philosophy, or from which some Science can be drawn.

My chief design in this Preface is to give a short History of this Philosophy which I want to revive: And it is the more proper, that, besides Plato and Aristotle, names well known even to those who are ignorant of Ancient Philosophy, I have mentioned, in this Volume, several Philosophers of a later age, such as Porphyry, Iamblichus, and others of the Alexandrian School, who are not known any more than the School to which they belong, except to a very few in this age, who have made a study of the Ancient Philosophy.

That Egypt is the native country of all Arts, Sciences, and Philosophy, and that from thence they have been derived to all the Nations, if not of Asia and Africa, at least of Europe, I hold to be a fact incontestable; and the reasons why it must have been so, are to me very evident. For, in the first place, it is certain that the nomade life, which I believe was originally the life of all

men, was first difused in Egypt, where men lived in cities, and fublifted by agriculture, thoufands of years before there was any fuch affociation of men in Europe, and while the inhabitants there lived as the Scythians and other northern nations did in later times, and were ftill more favage, being little better, as I imagine, in very ancient times, than mere Ourang-Outangs. This high antiquity of Egypt is not only attested by moft credible Authors, fuch as Herodotus and Diodorus Siculus, and who had the beft opportunities of being informed; but the nature of the country is to me a clear proof that men muft have fublifted longer by agriculture, and in fuch great numbers (Egypt having been the moft populous country that either is or ever was *) than they could have done in any other country where the foil is not annually renewed, as it is in Egypt; for there is nothing more certain, than that by conftant culture for many thoufands of years, the fame foil, however rich, and whatever addition may be made to it by human art, will at laft be worn out. Now, whoever has ftudied the Hiftory of Man, muft know, that Arts and Sciences can never arife among a vagrant people, but only among a people living by agriculture in cities; that is, in the clofeft fociety and moft frequent intercourfe †.

2do, In Egypt, there was a race of men, and of the beft men in the country (for it was the moft honourable of all the Claffes, or Cafts, into which the Egyptian people were divided) who were fet apart for the duties of religion, and the cultivation of Sciences. Thefe lived in different Colleges, fuch as thofe of Thebes, Memphis, Heliopolis, &c. and enjoying perfect leifure, being fupported at the public expence, and fucceeding one another from father to fon

* See what I have faid upon the fubject of the Populoufnefs of Egypt, Vol. I. of the Origin of Language, p. 647, and following, of the fecond Edition.

† Ibid. p. 661. and following.

son for many thousand years*, it was of necessity that Arts and Sciences being thus hereditary, and transmitted from father to son, should have been carried to the greatest perfection. And here we may observe a very great difference betwixt Egypt and other countries, particularly the country of Greece, where every man was engaged in business, public or private, of one kind or another; and where no man was obliged to follow the profession of his father, but was at liberty to follow any other he chose. In such a country, Sciences and Philosophy may be cultivated if they are once imported; but I think it is hardly possible that they could have begun.

3^{to}, It appears to me that Luxury, which is the bane of all Arts and Sciences, began later in Egypt than in any other country we read of, for which two reasons may be given; first, the prodigious numbers of people in the country, which made it impossible for the few to live in great Affluence and Luxury, otherwise the many must have been starved, which we know was not the case: And, secondly, because they had no foreign Luxury, nor foreign Commodities of any kind, as we are sure that Egypt, in antient times, had no intercourse with other nations, but was shut up as much as Japan is now. And though we may suppose that in all times, in Egypt, as well as in other countries, the richer and better sort of people would indulge in all the sensual pleasures they could procure, yet we are assured that the Priests, even in later times, led a most austere life; such as some Christian Monks, called *Anachorets*, did in the same country, and, as it is supposed, in imitation of the ancient Egyptian Priests, and such as many Monks at this day live†.

4^{to}, There

* See what I have said of this Succession of Priests. Ibid. p. 626, and following.

† Upon the subject of the Diet of the Egyptian Priests, see what Porphyry has said in his last book *De Abstinencia*.

4to, There is another reason more general than any I have hitherto mentioned, which persuades me that Egypt is the native country of Sciences and Philosophy : And it is this, that it has pleased the great Author of Nature not only to make a distinction of races and families in the same nation, as I think I have clearly shown in the 10th Chapter of the second Book of this Volume ; but he has been pleased also to make a distinction of Nations, and to have bestowed different talents upon different Nations. Now it appears to me that he has bestowed, in an eminent degree, the gift of Science and Philosophy upon the Egyptian Nation, by which I would be understood to mean, not that mixed multitude and colluvion of People, which at present inhabit that country, but the antient Egyptian race. The Greeks were blessed with a Genius for the liberal Arts, and an exquisite Taste for what is beautiful, graceful, and becoming : Nor do I believe that ever a Nation existed so much favoured by the Muses and Graces. But as to the Sciences and Philosophy, if they had not imported them from Egypt, I am persuaded they never would have invented them ; at least never would have made any considerable progress in them ; for even in Geometry, one of the first Sciences among men, which they undoubtedly got from Egypt, we see how little progress they had made as late down as the days of Plato, who says that they were even then shamefully and brutishly, or swinishly, as he expresses it, ignorant of the very principles of it *. Arithmetic is a Science that should precede Geometry, being the foundation of all Arts and Sciences ; yet even that I am persuaded they got from Egypt, where, as Plato informs us †, it was very much cultivated, and taught to children in the proper way in which they should learn every thing, that is, in playing. Now, without these two
 Sciences

* Ibid. p. 630, where I have quoted the words of Plato.

† *De Legibus*, Lib. viii. p. 819, Editio Serrani.

Sciences it is impossible that Men can ever ascend to Philosophy*. As to the Western and Northern Nations of Europe, it is to me evident that they never would have invented either Science or liberal Art, if they had not been first taught by the Greeks or Romans; for, as to the Arts, it is evident that, at this day, we practise none of them in the least degree of perfection, but in imitation of the Antients, without whom we have no Painting, Sculpture, Architecture, Poetry, or Writing of any kind of any value. And as to Sciences, though our Genius be more fitted for them, I think, by Nature, than for the fine Arts, yet we have invented none, unless it be Sir Isaac Newton's Astronomy, of which I have said a great deal already, and shall say something more in this Preface.

But

* In a book of Nicomachus, a Pythagorean Philosopher, entitled, *τα ἀριθμητικὰ* της Αριθμητικής, which is a very rare book, not to be found, I believe, in Britain, but of which I had the use from the French King's Library, it is said that there are four steps, or *ἐπιβαθμοί*, as they called them, by which we ascend to Philosophy, viz. *Arithmetic*, *Music* (by which the Pythagoreans meant the doctrines of Ratios and Proportions), *Geometry*, and, lastly, *Sphærics*, the name which they gave to the Science of Body in Motion, or, as we call it, *Mechanics*. I am afraid that most of those who call themselves Philosophers at present, have done no more than get up those steps; and I suspect that but few of them have fixed their feet, even upon the lowest step, I mean Arithmetic, so well as the Pythagoreans did, who studied the nature and properties of Numbers, as much as they did those of Lines and Figures, dividing them as they did Figures into Triangles, Squares, Rectangles, Cubes, and shewing how they were produced from one another. In this way they treated of Numbers, considered as absolute and in themselves; then they considered them as they stood in relation to one another. This is the doctrine of Ratios and Proportions, to which, as I have said, they gave the name of Music; and of this part of the Science they treated in the same scientific way, dividing the Ratios into their several Specieses, and shewing the wonderful procession and generation of the one from the other. In this way, Arithmetic is treated, and made a Science of, by Nicomachus in his Book of Arithmetic, and by Theon Smyræus, in what he has written upon the same subject.

But whatever the Reader may think of the reasons which I have given for Philosophy being indigenous in Egypt, the fact is most certain that it came from thence into Greece: For, in the first place, there can be no doubt that there was Philosophy in Egypt, and Philosophy of the sublimest kind, many hundred years before it was in Greece. Of this we are assured, not only by Heathen Writers, but by learned Fathers of the Church; such as St. Cyrillus, who, in his Answer to the Emperor Julian, says, That there were even in his time extant Egyptian writings ascribed to their god Mercury, containing a great deal of the highest kind of Philosophy, that is, Theology; and particularly the doctrine of the Trinity, and of the different persons of which the Divine Nature consists. And another Father of the Church, still more learned, namely Clemens Alexandrinus*, says, That the Books of Mercury, upon the subject of Philosophy, amounted to the number of Thirty-six. To these testimonies, if there was any doubt of the matter, may be joined those of all the later Platonists; such as Porphyry, Jamblichus, Proclus; and particularly Jamblichus, who has written a whole book upon the mysterious Philosophy of the Egyptians, entitled, *De Mysteriis Egyptiorum*†.

2do, It is likewise certain that Philosophy in Greece was first imported from Egypt under the veil of Religious Mystery by such mystagogues as Orpheus and Musæus, who, we are sure, were in Egypt,

* Stromat. Lib. vi. Cap. 4. p. 269.

† There is a most splendid edition of this book, published at Oxford in the year 1678, by Gale, a very learned Editor.

I hope this example will be followed by that university, and that we shall soon see more of the works of the Philosophers of the later age as well published.

Egypt^{*}, and particularly Orpheus, one of the first civilizers of Greece, who, if he did not draw Brutes after him, as the Poets feigned, did more, for he made Men of Brutes. He was not only famous for his skill in Music and Poetry, but excelled so much in this highest Philosophy, that he is commonly distinguished by the title of the Theologue or Hierophant †: And there were Theological works of his preserved down to very late times, which are frequently cited by antient Authors under the name of *Orphica* ‡; and there were a sect of Philosophers that continued long in Greece after his time, and are mentioned by Herodotus under the name of *Orphici* ||. What his opinion concerning the Deity was, appears by several quotations from his works, preserved in antient Authors, particularly in Clemens Alexandrinus, Stromata, p. 63. And I think I may venture to say, that, as far as we can judge from those quotations, there never was a purer or more sublime Theology. And his opinion too concerning the Human Soul (as appears from the same Author, P. 118, and P. 693, Lib. v. Stromatum, Cap. 12.) was perfectly just. In short, it appears that there never was a better Philosophy at any time in Greece, than what he introduced: And accordingly, we see that books were written by the later Platonists, to prove that the Philosophy of Orpheus, Pythagoras, and Plato, were all the same ¶: And indeed it must have been so, if it be true what Proclus has told us in the beginning of his work upon the

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Theology

* See Diodorus Siculus, Lib. i. where he names all the Sages of Greece who had travelled into Egypt, and among them Orpheus and Musæus, whose names, he says, were set down in the Egyptian sacred books: And other Memorials besides, were to be found of them in the country.

† 'Ο Θεολογος, ὁ Ἱεροφάντης.

‡ Fabricii *Bibliotheca Græca*, Vol. I. p. 118.

|| Lib. ii. Cap. 81.

¶ See Fabricii *Bibliotheca Græca*, Voi. I. p. 3.

Theology of Plato, that all the Theology of that Philosopher was taken from the Orphic writings and the School of Pythagoras.

It may be doubted, however, whether Orpheus ever wrote any thing himself, and whether his Philosophy was not communicated only to those who were initiated in the Mysteries, such as the Eleusynian and the Samothracian. If so, these writings, which passed under the name of Orpheus, must be the work of some of the *Orphici* of later times. But be that as it will, it is certain that his Philosophy came from Egypt, and was at first concealed under Religious Mysteries, and not revealed to the prophane. But even after it assumed another shape, and walked abroad without its mystic veil, Thales, the first philosopher of Greece by profession, had no other masters but the Egyptian Priests*, from whom he learned some Geometry, but does not appear to have carried away much of their Theology or Sublime Philosophy. But so much he learned from them of the Philosophy of Mind, as to know that even inanimate Things, as they are commonly called, such as Amber and the Loadstone, were animated; that is, were moved by Mind: A fundamental principle, in my opinion, both of the Philosophy of Nature and of Theism. He learned also there, that the universe was full of Dæmons or Intelligences†. But knowing how much more was to be learned from them, he advised Pythagoras to go to Egypt, and put himself to the school of the Priests of Memphis and Thebes, from whom, he said, he had learned every thing that had given him any reputation among his countrymen in Greece‡.

Before

* Diogenes Laertius in *Vita Thalctis*.

† Ibidem.

‡ Jamblichus *De Vita Pythagoræ*, parag. 12 of Keister's Edition.

Before I come to speak of Pythagoras, it will not, I think, be improper to give some account of the progress, as I imagine, of Philosophy in Egypt. While the Egyptians were yet Savages, and led the nomade life, which we are sure from traditions preserved among them, and recorded by Diodorus Siculus, they, as well as every other Nation, once did, they would believe, as we know all Savages do, in powers invisible, and superior to Man; for, so far I hold the idea of a Deity to be innate, that I am convinced all Men, when they have attained to the use of Reason, and have formed the idea of Cause and Effect, must of necessity believe that the operations of Nature are carried on by powers invisible, superior by infinite degrees to any power of Man. We are not, therefore, to wonder that Nations in that stage of the progress of Man should believe, that all the operations of Nature are performed by Spirits, or even that they should believe, as the Indians of North America do, that there is a Spirit in their darts and arrows, and such like things*: And this belief would continue among them till all the necessary arts of life, and many of the pleasurable were invented, and till some Men among them enjoyed leisure, not being obliged to labour for their sustenance, as all Men in a barbarous Nation are, but being supported by the labour of others: Then that curiosity and love of knowledge, which is natural to Man, would begin to exert itself, and make him admire *hunc solem et stellas et decedentia certis—Tempora momentis*—and all the rest of this wonderful frame of things—For wonder, as Aristotle observes, was the beginning of Philosophy. Thus, therefore, Philosophy began in Egypt, and among the Priests, as the same Author says, because they first had leisure†; and the first object of their attention would, I am persuaded, be Body, being that which was obvious to their senses; and

* This is related by Gabriel Sagard, in his Travels in North America. See a particular account of him, Origin of Language, Vol. I. p. 471, 2d Edit.

† Metaphys. *in initio*.

as they would observe it not only moving itself, as they thought, but likewise moving other bodies, they would reject the popular notion of all the motions in Nature being produced by Mind, and would, as is natural enough, go to the contrary extreme, and believe that all the Motions in the universe, and, by consequence, all the phænomena in Nature, were produced by Body only; and that even what intelligence appeared in the world, proceeded from Body also; and that Thought was nothing but Matter, finer and more subtile; variously arranged and moved.

Thus the first Philosophy in Egypt, and I believe every where else, was Materialism; and this notion of mine is, I think, supported by fact and observation. For the first professed Philosophers in Greece, I mean those of the Ionic School, were, as Aristotle informs us, all Materialists; till Anaxagoras arose among them, and first employed Mind and Intelligence to set every thing in order; and therefore, says Aristotle, talked like a sober sensible man among babbling drunkards*. But even he retained so much of the prejudices of the more antient Philosophy, that after things were once arranged and disposed, he supposed that they went on by Matter and Mechanism, and accounted, as Plato informs us †, for all the phænomena of Nature from vapours, ethers, and subtile fluids.

From what I have said of the first Philosophy of Greece, it appears that Epicurus did no more than revive the antient Philosophy, which had taken a very different turn under Plato and Aristotle; and, indeed, it is agreed, that he took his system of Atoms, and of Matter and Motion, producing every thing, from Leucippus and Democritus, philosophers who lived long before him.

* Arist. *Metaphys.*

† Plato in *Phæd.*

From this account of the first Philosophy among men, two observations naturally arise: The first is, that however acute and superior in understanding our modern Materialists may think themselves, their Philosophy is but the infancy of Philosophy, and such as no man that has passed the infancy of understanding, and is of any depth of thought, can embrace; and it should, I think, be not a little mortifying to them, to think that a Savage of America, whom, no doubt, they hold in the greatest contempt, should know what they do not know, that it can be nothing but Mind which moves the missive, not the impulse which has ceased *.

Another observation is, that it was probably vanity, and the affectation of superior wisdom, as much as ignorance, that made those first Philosophers differ so much from the people, as to believe that Body was not at all moved by Mind, but self-moved. Thus much at least is certain, that, as I have said elsewhere †, vanity is most prevalent in the character of the Philosophers of that kind among us. I have known many of them, and one of them in particular, who was a great apostle and preacher of that faith, and who was one of the vainest men I ever knew, at the same time one of the dullest, and as void of good learning, as any pretender to it ever was.

It was impossible that this infancy of Philosophy could have lasted long, not half the time that we are sure their kingdom lasted, among a people so intelligent as we know the antient Egyptians were ‡, who,

* When, therefore, Homer gives animation to the flying dart or arrow, it is not so violent a figure as is generally imagined, and would have been no figure at all, if, besides animation, he had not given appetites and inclinations to the darts. See concerning this figure in Homer, Aristotle *Poetic*.

† Vol. I. *Metaphys.* p. 247 *et seq.*

‡ See Herodotus, Lib. ii. Cap. ραα and ρξ. I am not sure but they had as good reason as the Greeks had, to call all other Nations Barbarians, which they did. Ibid. Cap. ρη.

who, from their institutions, appear to have been the wisest people that ever existed ; or if I could believe that it might have continued so long among the generality of the people, it is impossible, I think, to suppose that Philosophy, as well as other occupations, being appropriated to a certain race of men, and these the best in the country, such a Philosophy should have continued any considerable time among men set apart from the rest of the people, living together in colleges, and carrying on Science and Philosophy from father to son for thousands of years. They must therefore have soon learned what they taught Thales, that Body could not move itself, and that even the Bodies we call inanimate are moved by Mind. From these inferior Minds they would naturally rise to the vegetable, from the vegetable to the animal, and from the animal to the intellectual. They would discover likewise, that there must be many other Intelligences in the universe superior to men, and accordingly Thales, as I have said, learned among them that the world was full of Dæmons, by which the business of Nature was carried on ; but, at the same time perceiving that all Nature various as it is, was but one system, they would be convinced that there was but one Supreme Intelligence and Sovereign Architect of this wondrous frame ; and I doubt not of their having, in process of time, discovered that from the Supreme God, the Father of all things, there was a procession or emanation of two Divine Beings ; the one the Principle of Intelligence the other of Vitality. This was the Trinity of Plato, which, I have no doubt, he brought with him from Egypt, or learned in the School of Pythagoras.

I come now to speak of Pythagoras, who was initiated long before Plato into this Sublime Philosophy, and was the first, as Jamblichus in his Life tells us, who raised the Minds of the Greeks above Matter, and called them to the contemplation of Mind and of things Divine. He was undoubtedly the greatest philosopher that

ever was in Europe, and, in my opinion, the most extraordinary man that ever lived; such a man, indeed, as I could not have believed ever existed if we had not accounts of him so well vouched, that I cannot doubt of the truth of them; for besides his Life, written by Diogenes Laertius, we have his history from two philosophers of later times, Porphyry the master, and Jamblichus the scholar, who appear to have compiled very diligently what they relate of him from antient books that are now lost; particularly a Life of Pythagoras, written by Aristoxenes the musician and philosopher, and scholar of Aristotle; and another Life of him, written by Di-cæarchus, likewise a scholar of Aristotle, and a most diligent enquirer into matters of antiquity. These Authors, and sundry others who had written of Pythagoras, are quoted by Porphyry and Jamblichus.

From these accounts, so vouched, it appears that he was not only a most extraordinary man, but something above humanity; nor do I wonder that the Roman Senate, when they were directed by the Oracle to erect a statue to the wisest of the Greeks, set up that of Pythagoras*, though Pliny, who tells the story, seems to think it extraordinary that they did not rather do that honour to Socrates: Besides his being a great philosopher, the greatest that ever was in the western part of the world, and inferior to none except his masters the Egyptian Priests, he had something in his person and appearance, august, and even divine, such as attracted the admiration of all that beheld him†. And the fact certainly is, that he was more generally admired and followed than, I believe, any man
ever.

* Pliny, Lib. xxxiv. Cap. 6.

† Jamblichus *de Vita Pythagoræ*, Cap. ix. & x. Edit. Keyseri.

ever was, and by his disciples he was revered as a god; and it was one of their sacred tenets, as Aristotle informs us, that Pythagoras was of a nature somewhat betwixt God and man *.

In compliance with the advice of Thales, Pythagoras went to Egypt; and Porphyry has given us his history there, for which he quotes an Author, one Antiphon, in his book concerning the *Lives of remarkable Men* †. The substance of it is this, that Pythagoras, desiring to be recommended to the Priests of Egypt, applied himself to Polycrates the Tyrant of Samos, who gave him letters to Amasis, King of Egypt, his friend, who again gave him letters commendatory to the Priests. With these he went first to Heliopolis, where the Priests, upon pretence that those of Memphis were the elder college, sent him thither to be instructed; and they again, upon the same pretence, sent him to those of Diospolis at Thebes, who not having that pretence, as there was no older Priests then in Egypt, bethought themselves of another device to evade complying with the King's commands, which was to make him go through such hardships and austerities of diet, and to suffer things so foreign to the Greek customs (among which, says Clemens Alexandrinus, circumcision was one), that they expected he never would be able to stand the trial. But having, contrary to expectation, endured all with great cheerfulness, they grew very fond of him, and admitted him even to put his hand to the censer, and to assist in their sacrifices.

And

† Jamblichus, Sect. 31, where he quotes Aristotle's words in his book upon the Pythagorean Philosophy, which is among his works that are lost. The words are *Του λογικου ζωου το μεν εστι Θεος, το δε ανθρωπος, το δε οιον Πυθαγορας.*

† Porph. Sect. 7.

And this reserve of the Egyptian Priests, and unwillingness to communicate their learning, is confirmed by other authorities, particularly that of Strabo *, who says, that he saw himself in Egypt the place where Plato and Eudoxus were said to have lived thirteen years : For, says he, the Egyptian Priests, making a great mystery of their learning, and being very difficult of access, it was only by length of time and great intreaty that they could be prevailed upon to communicate any thing : And even when they did so, says Strabo, they only told them a few things, but concealed the greater part. And Plato himself, in his twelfth Book of Laws, where he directs that strangers that came to his city for the sake of curiosity and learning, should be well received, takes occasion to observe the contrary custom of the Egyptians, (whom he calls *Θρεμματα του Νειλου*, as if he had been speaking of cattle,) who, says he, drive away strangers *βρομασι και θυμασι αγριοις*, which, I think, very plainly alludes to trials, such as Pythagoras passed through, consisting of certain meats, to which the Greeks were not accustomed, and strange rites of sacrifice.

In Egypt, says Jamblichus, he passed no less than twenty-two years, in the greatest intimacy with the Priests † : And it would appear from a passage in Plutarch, *de Iride et Osiride* ‡, that the Priests of Heliopolis, though they rejected him at first, admitted him afterwards : For, says Plutarch, it is reported that he was instructed by *Οινουφους* of Heliopolis, as Solon was by *Σογχις* of Sais, and Eudoxus by *Χονουφους* of Memphis. Then, being taken prisoner by Cambyfes's foldiers, he was carried to Babylon, where he remained twelve years, studying under the Chaldæans and the Persian Magi ;

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* Geogr. Lib. xvii.

† Sect. 13.

‡ P. 632.

after which he returned to Samos, having been abroad thirty-four years, and collected all the learning of Egypt, Chaldæa, and Persia, which, with what he had got before in Ionia and Phœnicia, must have made him master of every thing that was then to be known in the world, at least on this side of India, though it be reported, but upon no good authority, that he was likewise there.

How much he must have profited in Egypt we may judge, not only from the time he staid there, so much longer than the stay made by any Greek philosopher before or after him, but also from this circumstance, that Egypt was then in its glory, being a free country, governed by its own monarchs, its learning and arts flourishing, and its Priests, who were the depositaries of their learning, in the highest credit and estimation. At that time their books and other monuments of antiquity must have been entire. Nothing therefore of Art or Science can be supposed to have been then lost among them : And if they made a free communication to Pythagoras, of which there is no reason to doubt, he must have got all the learning that had been accumulated among them for thousands of years. How much things were changed in after-times, we may learn from Strabo, who says, that when he was at Heliopolis, where of old there was a most famous college of Priests for their skill in Astronomy and Philosophy, he saw nothing but the ruins of the houses where the Priests dwelt ; and instead of learned Priests and Philosophers, he found nothing there but some sacrificuli, or low ministers of the altar, who explained to strangers their rites of sacrifice *. Things were, no doubt, better when Herodotus was there, which was not long after the Persian conquest. But as Herodotus was not a philosopher, he could not be supposed to have the curiosity, or to be at the trouble that it cost Pythagoras and Plato to obtain.

* Strabo, Lib. xvii.

tain instruction from them, except as to the history of the country, in which he has shewn that the Priests from their sacred books instructed him very well ; for the history he has given us of Egypt is by far the most complete we have, much more so than that of Diodorus Siculus, who pretends also to have seen those sacred books : But either the books were not then entire, or he had not so good an interpreter of them as Herodotus had. It seems indeed to be certain that the study of Astronomy at least was preserved in Egypt when Plato was there, yet we must suppose that it was much decayed ; but even what was known of it, it is evident from the passage above quoted from Strabo, they did not impart, except in a small degree, to him.

It seems therefore evident that, if ever the Philosophy of Egypt was brought out of the country, which, as we have seen, was a very difficult matter, it was by Pythagoras. What addition he may have made to his knowledge in Phœnicia, and among the Chaldæans of Babylonia, is not easy to say ; but this we know, I think, with great certainty, that both the Phœnicians and Chaldæans had their learning originally from Egypt ; for the Phœnicians lived once upon the Red Sea, in the neighbourhood of Egypt, and learned the use of letters from the Egyptians, as well as other things * ; and the Chaldæans were the Priests of Jupiter Belus, and were a colony from Egypt †. As to what he learned by being initiated into the mysteries in the several places where he sojourned, that learning must have come from the same country from whence the mysteries came, that is, from Egypt ; for at that time there was an inseparable connection betwixt Religion and Philosophy, nor indeed ought they

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* Of the connection betwixt the Egyptians and Phœnicians, see what I have said in the first Volume of the *Origin of Language*, p. 631, 632, Second Edit.

† Ibid. p. 652.

ever to be separated : And, besides, it appears to have been an universal opinion of all philosophers and wise men in those days, that Philosophy ought not, any more than Religious Mysteries, to be promulgated among the vulgar.

With this stock of Philosophy, greater than, I believe, ever any man collected, he returned to Samos, his native country, at the age of fifty-six *, after having been abroad thirty-four years ; but he soon left it to go to Italy, because, as some say, he was oppressed with public business ; but, as others say, which I think more probable, because the people of Samos were not disposed to receive his Philosophy. He therefore went to Italy, says my Author, reckoning *that* his native country where there were most lovers of Science †.

The place where he chose to fix his residence was Crotona, a very famous city in that part of Italy, to which he is said to have given the name of *Magna Græcia*, where he was received with the highest marks of honour, and lived there like a god among men ; for he did not mix with the people, and was not visible except to a few of his own followers, who were initiated into the mysteries of his Philosophy. He had something, as I have said, in his form and appearance more than human, which struck every one that saw him with awe and reverence : And he was believed to be possessed with powers and faculties far surpassing common humanity ; for it was said that he predicted future events ; that he remembered what had happened to him in former periods of his existence, when he animated other bodies, and was able to make others do so too, after they were initiated into his Sublime Philosophy, and purged from all
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* Jamblichus, ubi supra, Sect. 19.

† Ibid. Sect. 29.

passion and perturbation. He had power also, it was said, over brutes, and made even the wildest and fiercest of them obey him.

There are many, I know, of the age in which we live, who will consider this man, so much admired by all antiquity, as no better than an impostor: But I cannot reject what was believed of him by all his followers, and attested by so many credible authors, who lived near his time, unless I could be convinced of the impossibility that a being could exist, such as Aristotle mentions, that was something betwixt God and man. But, so far from being of that opinion, I am convinced that there are many Intelligences betwixt us and the Supreme Intelligence, of power far superior to us: And indeed a philosopher, who has observed the wonderful variety of Nature in other animals, and how much they rise one above another, cannot doubt that there is the same variety and subordination one to another in the intellectual as in the animal Nature. Some of these superior Intelligences were understood by the Antients to be clothed with aerial or ethereal bodies, *ἀέρα ἐσσανμένοι*, as Hesiod expresses it, and were called *Dæmons*. But there is certainly nothing in Nature to hinder a superior Intelligence from inhabiting such a body as ours, and I believe Pythagoras to have been a being of that kind: And I likewise believe that in more antient times there were many such, who were revered as a superior race of men, and known by the name of *Heroes* and *Demigods*.

That Pythagoras was no impostor, or pretender to more wisdom than he really had, is, I think, evident from what he did. He established at Crotona a School of Philosophy, such as, I believe, never was any where else on earth; at least I am sure there was never any such in Europe: And in this respect it seems to have excelled even the colleges of the Priests in Egypt, that it joined prac-

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tical Philosophy with speculative, and produced not only great philosophers, but men eminent in arms and in government: Nor do I believe that there ever existed such a race of men as came out of that School; for though the heroes who fought at Troy were men of superior natural powers both of mind and body, they were not philosophers, as the scholars of Pythagoras were. Out of this School came Timæus the Locrian, who was not only a great philosopher, as is evident from what is yet preserved of his writings, I mean his treatise *De Anima Mundi*, but was an eminent statesman, as we are informed by Plato; also Archytas the Tarentine, of whom we are told by Diogenes Laertius in his Life, that he seven times commanded the army of his country, though it was a law among the Tarentines that no man should bear that office but once; and that in all these several commands he never was worsted by the enemy, but once by the envy of his countrymen he was obliged to abdicate the command, the consequence of which was, that the whole army were taken prisoners. How great a man he was in Philosophy, that great work of his, which is yet preserved to us *περί τοῦ παντός*, or *Concerning the University of Things*, containing, as I have shewn elsewhere*, the principles of all Science and Demonstration manifest. And, besides that great work of his, which Simplicius, the commentator upon Aristotle's Categories, has preserved to us almost entire, we have several most valuable fragments of his upon Moral Philosophy, collected by Gale in his *Opuscula Mythologica*, and what should make him a great favourite of our modern philosophers, he was the inventor of the Science of Mechanics†. Besides these, out of this School, as out of the Trojan horse, issued the greatest lawgivers that, I believe, ever were in the world, such as Charendas, Seleucus, Timaratus, and others mentioned by Jamblichus

* Origin of Language, Vol. I. p. 72, 73, of the Second Edit.

† Diogen. Laertius in *Vita Archytæ*.

thus in his Life of Pythagoras*, who all, in the several cities to which they gave laws, were honoured as gods.

Nor are we to wonder that this School produced such great men, when we consider not only how they were educated, and what a course of study and discipline they passed through, but how carefully they were chosen before they were admitted into this School; for Pythagoras believed that there was by Nature, as well as by Education, a very great difference of men; and he said, that if a common statuary is at so much pains to chuse a piece of stone or timber, out of which to make a Mercury, or statue of any kind, how absurd is it not to pick and chuse, with the greatest care, a man of whom you are to make a philosopher or statesman †. He further believed that as Mind was principal in every thing, so it was in man; and that our bodies being made for the uses and purposes of the Mind, they bore evident marks of the habit and disposition of the Mind, to which they were subservient; therefore he examined very carefully not only the face, but the whole body, the air, the appearance, and the movement of those whom he admitted to his School, as being certain indications of the dispositions of their Minds: And he enquired besides, how they had behaved to their parents and other relations, what gave them pleasure or pain, and how they commonly passed their time ‡.

The philosophers educated in this School became governors in almost all the cities of Magna Græcia, and in several of the states of Sicily, and established there other colleges for the education of such men as themselves. Nor was the benefit of these institutions
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* Parag. 172.

† Jamblichus *De Vita Pythagoræ*, parag. 245.

‡ Ibid. parag. 71.

of Pythagoras confined to Italy and Sicily; for Zamolxis, one of his slaves, being emancipated by him, went among the Thracians, and having given them laws and politics, and established among them the opinion of the immortality of the Soul, and of a future Life, without which I hold it to be impossible that any people can be well governed, was on that account deified by them, and worshipped as one of their greatest gods *.

That men so chosen and so educated should be the best governors that I believe ever were on earth, is not to be wondered. But I must own I wonder that men could descend from such sublime speculations to the business of government *et hominum curare triumphos*; and I think it could not have happened if it had not been earnestly recommended to them by their master as a duty they owed to their country and mankind. In the same manner Plato says, that the philosophers to be educated for the government of his state were to be compelled by the law to govern, not always indeed, for that would have been cruel, but in their turn. It does not however appear that Pythagoras himself ever bore office in any state; but he was much better employed in educating governors for many states. But though the Pythagoreans condescended to govern, there was one thing in the administration of public affairs they never would meddle with, and that was, the public money; nor indeed would they take concern about money at all, except when they were appointed by their College to be the steward of their common funds; for none of them had any private estate, but all was common among them; and as their diet and whole manner of life was very simple, as free from luxury as from vanity, their funds, which consisted of the estate of every one who entered into the Society, were sufficient to maintain them. The love of money, therefore, which

* Jamblichus in *Vita Pythagoræ*, parag. 173.

which our Scripture tells us is the root of all evil, and, Aristotle says, produces more crimes, than all our other passions put together, was unknown among them.

It may be further observed of them, that the lawgivers and governors who came out of this School were humane and gentle in their disposition; for they did not insist, as Heraclitus the Ephesian did, before he would give laws to his countrymen, that all those above the age of puberty should hang themselves, but, on the contrary, treated the people they governed with the greatest kindness and condescension, endeavouring, as much as possible, to make them wise and good men, without such a desperate remedy as that proposed by Heraclitus *, or even that which Plato thought necessary for the good government of his state, the driving out of his city all above the age of ten, and educating properly the youth that remained.

Neither of these expedients could be put in practice by such a handful of men as Pythagoras and his followers, who could only govern with the consent and approbation of the people. But the consequences showed, that men cannot be well governed, at least for any considerable time, if they are not well educated; and that it is as necessary that the people should be fit to be governed, as that the rulers should be fit to govern: For though those states of Italy and Sicily were as happy as I believe any people ever were, while they were governed by those philosophers, yet, as it was natural, they grew impatient of that government, not having been bred up and educated under it: Factions, therefore, and seditions, arose in the different cities, which ended in the destruction of the several Col-

* Jamblichus in *Vita Pythagoræ*, parag. 173.

leges of the Pythagoreans, who were all either massacred or driven out of the country.

This, as I have elsewhere observed *, was one of the greatest calamities that ever befel Philosophy; but it is to it that we owe all the writings of the Pythagorean School, and, in my opinion, all the good philosophy that yet remains in the world: For it was not till they were dispersed, and eased of the cares of government, that those philosophers took to writing, and in that way published what was kept as a profound secret among themselves while their Colleges subsisted. This they did, says Porphyry †, fearing the anger of the gods if Philosophy, the greatest gift to men, should be utterly lost by their neglect to commit it to writing: And to this dispersion we owe also the greatest man, in my opinion, that Greece produced, I mean Epaminondas, who was educated by Lyfis, one of Pythagoras's scholars, who having escaped out of a house in Crotona, in which he, with many other Pythagoreans, was assembled, and which was set on fire by the people of that town, came to Greece and settled in Thebes, where Epaminondas was his scholar and son, as he called himself ‡.

I have been the more particular in this account that I have given of Pythagoras and his Philosophy, as I am persuaded, that all the Philosophy which yet remains in the world is derived from his School, and is nothing more than scattered remains, or planks, as it were, that have been collected and saved out of the shipwreck of that Philosophy in Italy, as will appear more evidently from what follows.

There

* Vol. III. of the Origin of Language, p. 439. Vol. II. p. 262.—Introduction to Vol. I. of Metaphysics, p. 6.

† *In Vita Pythagoræ*, parag. 58.

‡ Jamblichus *De Vita Pythagoræ*, parag. 249, 250.

There is only one thing farther I would say in favour of this Philosophy, that it was a most religious Philosophy, and unmixed with any frivolous superstitions; though there be some of their observances, particularly that with respect to Berns, which we cannot account for.

I pass over the Ionic and Eleatic Schools of Philosophy in Greece, because in them that sublime Philosophy which enquires concerning God and the first Principles of things was unknown, nor, indeed, had they any thing deserving the name of Philosophy, unless perhaps some Logic and Dialectic, in the Eleatic School; and I come down to Plato.

The Reader will, no doubt, be surpris'd that I pass over Socrates, who is commonly supposed to stand at the head of all the Philosophers of Greece after his time. But though Socrates was a man of great virtue, and of excellent understanding, he was rather, in my opinion, a lover of Philosophy, than a philosopher; for he was a great inquirer and searcher after knowledge, and had a particular talent for setting other men upon inquiry likewise. But his inquiries were entirely confined to Morals, or what was good and ill in human life*; for that Universal Philosophy, which treats of Nature, and the first Principles of all things, he not only did not study, but despised, as Xenophon in his *Memorabilia* informs us †, from whom only we learn the genuine Philosophy of Socrates. And, according to his account, it appears that Socrates valued no knowledge that was not practical; whereas those whom I call truly Philosophers, such as the Pythagoreans, Plato, and Aristotle, placed the highest human felicity in theory and speculation upon the highest subjects,

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* Ότι τει εν μεγαραισι, κακον αγαθον τε τετυκται, — is a line of Homer which he had frequently in his mouth.

† *Mem.* in initio.

subjects, such as God and Nature, and the Universe * ; and it was only the necessities of human nature that made them descend to the common affairs of life.

But even the practical Philosophy of Socrates was defective in this respect, that it did not take in, what was Principal in Morals, according to the antient notion ; I mean the right constitution and proper administration of a system of Policy or Government, upon which the happiness of every individual must depend, more or less. His system of Morals therefore was entirely confined to private life ; and even with regard to it, he does not appear to have known that distinction which is the foundation of the whole human Philosophy, betwixt our intellectual nature, and our animal or sensitive : Wanting therefore the knowledge of this distinction, he does not give us, as the Pythagoreans do, a system of Morals deduced from the constitution of the human mind, but only from experience and common observation : And when he endeavours to philosophise upon virtue, he falls into a great error, by supposing that it is nothing more than Science ; so that according to his doctrine, if a man had the science of virtue, and knew perfectly what it was, he was therefore virtuous †. But he might have learned from the Pythagorean School what Plato and Aristotle there learned, that to make an action virtuous, besides a right opinion or judgment of the mind, there was required, a sense of the *Pulchrum* and the *Honestum* ; and a kind of enthusiasm thence arising, which gives the true colour and beauty to virtue.—But of this more hereafter.

That Socrates's system of Philosophy should have been so confined, and even so erroneous, is not to be wondered, if we consider that
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* See upon this subject, Aristotle in the last Chapter of the *Nicomacheia*.

† Aristotle, Lib. vi. *ad Nicomachum*—*Magna Moralia*, Lib. i. Cap. i.—See also the *Protagoras* of Plato.

he was self-taught in Philosophy; for though he is said to have heard Archelaus, a philosopher of the Ionic School, it does not appear that he learned any thing from him; and though he read some books of Anaxagoras, Plato informs us *, that he was not at all the wiser for them. Now, if a man who philosophises without the assistance of learning, either from books, or what is better, from the instruction of living Masters, and pretends to invent himself a System of Philosophy, he is very lucky, if he attains to that knowledge which alone Socrates professed to have. I mean, the knowledge that he knows nothing: And as I believe Socrates was not ironical in this profession, it gives me the highest opinion of his understanding; though it was not, as is commonly believed, so very modest a profession; but on the contrary, it was pretending to more than ordinary wisdom; for it was, in effect, saying, that he was not liable to error, which consists only in thinking we know, when we do not know; for if we only do not know, we are ignorant, but not in an error.

This example of Socrates, a man of such excellent parts, and who spent his whole life in the search of knowledge, convinces me of the truth of what I have said above, That Philosophy never could have been the growth of Greece, but must have been imported from such a country as Egypt. But thus much Philosophy owed to Socrates, that he excited men's curiosity, and desire to be instructed in it; and if he could not teach them himself, he made them apply to others that could; and by his admirable method of Dialogue and Interrogation, he prepared men's minds for Philosophy, by showing them that they were ignorant of what it was most necessary for them to know; for men must be first convinced that they do not know a thing, before they will learn it: And at the same time he showed

* *In Phædone*, p. 72. Edit. Ficini.

them, that the Sophists who pretended to instruct them, were as ignorant as he professed to be; the consequence of which was, that his followers, and particularly Plato, applied to better masters, and so became Philosophers.

And this brings me back to Plato, who was so far from being self-taught, like his master Socrates, that he sought for learning wherever he could find it, whether from men or from books: And first he was a scholar of Socrates, after whose death he applied himself to Cratylus, the scholar of Heraclitus, then to Hermogenes of the School of Parmenides; after which, he went to Megara, to hear the Philosopher Euclides; and from thence to Cyrene, to be the scholar of Theodorus the Mathematician; next he went to Italy, to the Pythagoreans there, Philolæus and Eurytus; and from thence to Egypt, to converse with the Priests there, or Prophets, as they are called by the Greek Writers*. And not content with this, he would have visited the Persian Magi, but was prevented by the wars then in Asia. As to books, there were very few at that time to be got; but as the Pythagoreans were then beginning to commit their Philosophy to writing, it is said, that he purchased from Philolæus, the Pythagorean, three books of that philosophy, at a great price†.

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* Εἰς Αἴγυπτον, πρὸς τοὺς προφῆτας, says Diogenes Laërtius in his Life of Plato, from whom this account of Plato's Travels in search of Knowledge is taken.

† These three books are mentioned both by Diogenes Laërtius, and Jamblichus, in their Lives of Pythagoras. The titles of them were, Παιδευτικόν, Πολιτικόν, and Φυσικόν. Under the first of these, I suppose, was contained every thing relating to Education, and those studies I have already mentioned, preparatory to the study of Philosophy: The second comprehended, not only what we call Politics, but also *Morals*, which, as I have said, were understood by the Antients to be a part of the Political Science. The third comprehended, I have no doubt, not only *Physics* in our sense of the word, but also what we call *Metaphysics*; for as those pious philosophers understood

From this so great collection of learning, Plato composed a complete body of Philosophy, comprehending Morals, Politics, Dialectic, which was then the name for Logic, Physics also, and Metaphysics; from whence we may see at first view, how much more comprehensive his System of Philosophy was, than that of his master Socrates; for Socrates, as I have observed, did not at all treat of Physics, or Metaphysics; and though he reasoned much, and very well, yet he did not pretend to explain the art of reasoning, or teach any system of logic: The subject of his philosophy was intirely confined to Morals; whereas Plato's system took in the whole human philosophy, Politics as well as Morals. Nor has any thing finer come down to us from antient times, than the Books of Plato upon Polity and Laws; but the greatest part of which, I am persuaded, he has taken from that book of Philoklaus above-mentioned, entitled πολιτικον. As to Metaphysics and Theology, his philosophy was most sublime, and approaching near to the Christian Theology, particularly with respect to the Doctrine of the Trinity, which he no doubt learned, either in Egypt, or, as I rather believe, in the Orphic or Pythagoric writings. His doctrine of Ideas too, I think, may be referred to his Mystic Philosophy, and which, I am persuaded, he likewise learned in one or other of the ways above-mentioned *. And even as to Morals,

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understood that all the operations of nature were produced by mind, they thought that the philosophy of mind was essentially connected with *Physics* as well as *Morals*. And as they investigated the first principles of all the subjects of science which they studied, they thought they could not explain the principles of Natural Philosophy without an inquiry into the nature of the First Mind, the author of all motion in the universe.—From this account of the subject of those three books, it is evident that the Pythagoreans must have had a complete system of Philosophy; and so Jamblichus tells us in the beginning of his Twenty-ninth Chapter of the Life of Pythagoras.

* Porphyry, in the beginning of his *εισαγωγή*, speaks of this doctrine of Ideas as a thing of very abstruse philosophy, and therefore improper for a work that he intended

to which Socrates' Philosophy, as I said, was entirely confined, he excelled him very far, for both he and Aristotle learned from the Pythagorean books, what, as I have said, is the foundation of the whole human philosophy; viz. that there are two minds in man, the rational or intellectual, and the irrational or animal; and this last, he said, was governed by two principles, which they call *θυμος* and *ἐπιθυμία*, or *anger* and *appetite*. From this constitution of the human mind the Pythagoreans derived their whole doctrine of Virtues and Vices in a more distinct and clearer way, in my opinion, than is to be found either in Plato or in Aristotle *. To the rational mind, or governing principle of our nature, which deliberates and determines, they ascribe the virtue of Prudence; to the *θυμος*, by which we resist opposition, sustain toil and pain, and encounter danger, belonged, according to them, the virtue of Fortitude; and the *ἐπιθυμία*, or *concupiscence*, as we may translate it, comprehending all those appetites and desires which nature has implanted in us, for the preservation of the individual and continuation of the species, is governed by that virtue which we call *Temperance* †.—The notion of these three virtues both Plato and Aristotle have taken from the Pythagoreans. As to the fourth Cardinal Virtue, viz. Justice, Plato's notion of it, as it is explained at great length in his *Books of Polity*, appeared to me, when I first read these books, very new; and I believed it to be an invention of his own: but when I read

as an introduction to Philosophy. His words are, *Αυτικα περι γενων τε και ειδων, είτε υφesiηκεν, είτε και εν μοναις ψιλαις επινοιαις κειται, είτε και υφesiηκοτα, σωματα εστιν, η ασωματα, και ποτερον χωριστα, η εν τοις αισθητοις, και περι ταυτα υφesiηλα, παραιτησομαι λεγειν βαθυτατης ουσης της τοιαυτης πραγματειας, και αλλης αλλως μειζονος θεομενης εξετασεως*, where the learned reader will observe, that he has enumerated, and stated most distinctly, all the difficulties concerning Ideas.

* See Theages, a Pythagorean Writer, εν τω περι αρετων, p. 681, of Gale's *Opuscula Mythologica*.

† Gale's *Collection*, ubi supra.

read the Doric Fragment of Theages above-mentioned, I found it to be laid down there, and full as well explained, though in very much fewer words. When, says Theages, there is a perfect agreement of all the three several parts of the mind together, the Rational part governing and leading, the *θυμος* and *ἐπιθυμια* obeying, then exists that virtue we call *Justice*, which is the perfection of all the other virtues; being that without which there can be no harmony or concord in the mind, and consequently no real virtue of any kind *. And the comparison of the human mind to a political state, which runs through Plato's whole *Books of Polity*, and by which he illustrates his notion of Justice, appears to me to be taken, as well as the doctrine itself, from the writings of the Pythagoreans; for in this work of Theages, the *θυμος* or *irascible* part of the mind, is said to be its Guard, or Military Force; the *Concupiscence* is the Steward or Economist; while the *Rational Principle*, like the Council of State, governs and directs the whole.

Moreover, both Plato and Aristotle agree in this, that there can be no virtue without a sense of the *το καλον*, or the *pulchrum* and *honestum*. Plato, whenever he treats of Morals, mentions the sense of the *το καλον* almost in every page, as the source of every thing great or good in our actions; and Aristotle makes it a part of his definitions of the virtues, that they are practised *ἐνεκα του καλον*; that is, for the sake of the *fair* and *handsome*, which he says is the end of virtue †. And this too is necessarily derived from the nature and constitution of our mind as above explained; for our intellect being the governing principle of our *little world*, it must necessarily be determined in its deliberations by some motive, and must have some object in view which it pursues; and that object, as I have shown ‡, can be no other than

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* Gale's Collection, *ubi supra*, p. 683 and 689.

† Τοῦτο τέλος της Αρετης, Lib. iii. Cap. 10. *Nicomachia*.

‡ Vol. II. Book ii. Cap. 5 and 6.

than the *pulchrum* and *honestum*. Now in this too, the Pythagoreans agree with Plato and Aristotle: And they go so far as to say, that there can be no true virtue without a certain enthusiasm for the *το καλον* *.

As

* In this work of Theages I have so often quoted, he says, That what is most peculiar to moral virtue, and constitutes its essence, is *ἡ προαίρεσις, ἢ ἐν τοῖς καλοῖς*, that is, a determination to act *the fair and the handsome part*; and he adds, there may be reason and strength of mind without virtue; but virtue there cannot be, without such determination of the mind, p. 691. And again, in p. 693, he says, That true virtue is nothing else but the *ἔξις τοῦ δεοντος*, that is, *the habit of acting the becoming part*. And at the end of his Treatise, p. 694 and 695, he says, That this *ἔξις τοῦ δεοντος* must neither be without passion, nor with passion in excess. And he adds, *ἂ μὲν γὰρ ἀπάθεια, ἀπαρορμητοῦ καὶ ἀνενθουσιασμοῦ παρεχεται τὴν Ψυχὴν ποτε το καλον*. 'Α δ' *ἐκπαθεία συντεταραγμένην καὶ ἀνεπιλογισμένην*; that is to say, "Apathy renders the mind languid and without enthusiasm towards the *pulchrum* and *honestum*: On the other hand, excess of passion distracts the mind, and deprives it of thought and consideration." And he adds, "Passion therefore should appear in virtue, like shades in a picture; for it is these, which, together with the outline and the colour, give nature, truth, and animation to the whole. Without passion, therefore, virtue has not life or true colour; for virtue originally arises from passion (he means the love of the fair and handsome), and after it is formed, it is still consistent with passion, which, if properly mixed with it, produces the same effect as the mixture of *grave* and *acute* in music, and of *cold* and *warmth* in the temperature of bodies. The passions, therefore, must not be taken away altogether, for that would not be profitable; but they must be moderated and brought under subjection to the rational and governing part of the mind."——There cannot, I think, be finer Philosophy than this, nor better illustrated from the works both of nature and art; and it is the doctrine both of the Platonic and Peripatetic Schools, in opposition to the *Apathy* of the Stoics. The Pythagoreans also differed from the Stoics, and agreed with the Platonic and Peripatetic Schools in this, that they did not hold, that *virtue* alone made a man happy in this life, but they required *good fortune* also; and accordingly, they defined *happiness* to be "the exercise of virtue in a prosperous life," *χρησις ἀρετῆς ἐν εὐτυχίᾳ* (Gale's Collection, p. 678). For they said, it was not the possession of virtue that made men happy, but the exercise; and for the proper exercise of virtue, they thought that good fortune was

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As to Logic, there is nothing of the science of it in Plato, except what he has said of the Diairetic method, or method of *Division*, which he has explained and illustrated by examples in the *Sophista* and the *Politicus*. This method too was known to the Pythagoreans, and was part of their Logic, as appears from what Jamblichus says in his Life of Pythagoras*.

Thus it appears, that the whole Philosophy of Plato is taken from the Pythagoreans; and particularly his Morals and Politics, which make by far the greater part of his Philosophy.

Before I come to speak of the Philosophy of Aristotle, I cannot help observing, that these fragments of Pythagorean writers which Stobæus has preserved to us, and which Gale has collected together from different parts of Stobæus's Works, are, in my opinion, among the most valuable remains of antiquity; they are written in the Doric dialect, the only dialect used by the Philosophers of that School, which was become obsolete when Stobæus wrote, and, I believe, not perfectly well understood by Stobæus himself; and as the matter of those writings was so obscure, at least very much removed from common apprehension,

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as necessary as light is for the exercise of the faculty of sight.—And the utmost length they went was to say, that the virtuous man in adversity was not miserable; whereas the vicious and foolish were miserable in all situations of fortune. And in another passage they say, That the difference betwixt God and Man is, that God is perfect in himself, and needs nothing from without; whereas the nature of Man is imperfect and defective, and needs to be supplied from without. Although, therefore, we possess virtue, that is but the perfection of one part, namely, the mind; but as we consist both of mind and body, the body also must be perfect of its kind: Nor is that alone sufficient; but the prosperous exercise of virtue requires certain externals, such as wealth, reputation, friends, and above all, a well constituted state; for without that, the rational and social animal is imperfect, and unable to fulfil the purpose of its nature.

* Sect. 161.

hension, I think it is of absolute necessity that there should be some errors in the original MS. of Stobæus, or perhaps in the MSS. which he transcribed; and many more still in the after-copies that were made from Stobæus's MS.; and, no doubt, some in the printed editions of those MSS. Several of these errors Gale has corrected in his edition; but many more remain to be corrected. I hope, therefore, that if the noble attempt begun at Oxford to revive the antient Philosophy goes on, there will come from the Oxford press a more correct edition of this collection made by Gale, and which will do as much honour to the critical genius of England as the edition of another very valuable work of Antient Philosophy, I mean Hierocles upon the *Aurea Carmina* of Pythagoras, which has been published at Cambridge in 1709, by Mr. Needham, with the Notes of Dr. Bentley, in which that most ingenious Critic has restored a very corrupted text, with a knowledge both of the Greek language and of the subject, and an *acumen criticum*, which makes me admire the Doctor exceedingly.

I come now to speak of Aristotle, who was not self-taught any more than his master Plato. He did not, however, travel in search of knowledge like Plato, and the other sages of Greece before him; but, besides what he learned from his masters, Socrates and Plato, he was a great reader of books, of which he collected a great many, and is said to have been the first that formed a library, and showed an example to the Egyptian kings, who, in imitation of Aristotle, collected the famous Alexandrian library*. Among those he collected, I have no doubt that there were several of the Pythagorean writers, some of which, it appears, he has made great use of. And he would, no doubt, learn from Plato all that he knew of the Pythagorean, Egyptian,

* Strabo's Geography, Lib. xiii.—See the passage prefixed by Du Vall to his edition of Aristotle's Works.

Egyptian, and Eleatic Philosophy. And therefore I hold, that Aristotle, with the best genius for Philosophy, as comprehensive as it was acute and subtile, and the greatest industry, by which he did more in the way of science than, I believe, ever man did in the space of so short a life*, had the advantage of being as well taught as he could have been in Greece, or perhaps any where in the world, at that time; for the colleges of the Pythagoreans were then dispersed, and Egypt was not what it was when Pythagoras was there; for then their monarchy and hierarchy was subsisting: Whereas, when Plato and Eudoxus were there, the houses of the Priests were, as Strabo informs us, in ruins.

In what remains of Aristotle's Works, we see the fruits of his great reading; for he appears to have been very well informed of what all the Philosophers before him had thought upon every subject; though it has been observed, even by some of Aristotle's own commentators, that he often misrepresents the meaning of the Philosophers before him, that he might have the pleasure of refuting them; for his candour was not equal to his genius or learning†. His common way of beginning his inquiries upon any subject is, by telling us what the Philosophers before him had said upon it. And now, says he, let us try whether we cannot add something to what they have discovered, or correct their errors. I would, therefore, have those of this age, who pretend to philosophise without the assistance of learning, seriously consider, whether their genius or industry be
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* He lived no longer than sixty-three years, three of which he spent in hearing Socrates, twenty in attending Plato, and he employed eight in educating the Conqueror of the world.—See Ammonius in *Vita Aristotelis*, prefixed to Du Vall's edition of Aristotle. And yet he found time to write no less than four hundred books, as Diogenes Laertius informs us, of which by far the greater part, as appears from the catalogue given us by Laertius, are lost.

† See Origin of Language, Vol. I. p. 113 and 114. Second Edit.—Mataphysics, Vol. I. p. 79.

greater than those of Aristotle. And I would have them also consider, that in neglecting and despising the writings of Aristotle, they at the same time neglect and despise the whole Philosophy of Antiquity, of which Aristotle's writings may be considered as a collection.

These precious Works were very near entirely lost, and saved almost by a miracle; for they were raised, as it were, from the grave, having been buried, in order to save them from Attalus, king of Pergamus, who was then making a library, and searching for books every where; and it was, perhaps, the greatest glory of Sylla, Roman Dictator, that he brought these Works to Rome, at least as many of them as remained, and got them transcribed from the original manuscript by a skilful grammarian, who supplied, as well as he could, what was effaced in the MS. by their lying so long under ground *. If this so precious a collection of Antient Philosophy had perished, I should have thought it the greatest calamity that had befallen Philosophy, next to the downfall of the Egyptian Hierarchy, and the destruction of the Pythagorean Colleges in Italy.

The comprehensive genius of Aristotle took in all the branches of Philosophy, and made a system of it still more complete than that of his master Plato; comprehending, in the first place, Metaphysics, the higher part of which is Theology, Physics, Morals, under which I include Politics, and lastly, Dialectic and Logic.

As to the *first Philosophy*, which treats of God and the Principles of Things, Ammonius, who writes his Life, is in the right, when
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* See this History of the Fate of Aristotle's Writings told more particularly by Strabo, Lib. xiii.

he says, he added nothing to what had been said before on that subject: And I think he might have gone farther, and added, that this Philosophy in him is not near so sublime, or so truly divine, as it is in the writings of Plato, who, having a more exalted genius than Aristotle, though perhaps not so acute, entered more deeply into the mysteries of the Pythagorean Theology; for I can have no doubt but that the whole Theology of the Greeks was derived from the School of Pythagoras; and it was, as Jamblichus tells us, Pythagoras who first taught the Greeks to raise their minds above matter, to those things which have a real and permanent existence, and are the first causes and principles of all things*. These, he said, were immaterial, and the only active powers in the universe; and to the science of them he gave the same name that Aristotle does, calling it σοφία; whereas the knowledge of the other branches of Philosophy, he said, was no more than φιλοσοφία†.

With regard to Physics, he agreed with the Pythagoreans in making the principles of all natural bodies to be matter and form; as is laid down in Timæus the Locrian's book, *de Anima Mundi*. To these two he has added a third, viz. *Privation*, but without the least necessity, as I have elsewhere shown‡. He has said a great deal upon the nature of motion, that grand agent in all the operations of nature, much more than is to be found in any writings of the Pythagoreans that have come down to us. He has also treated of particular subjects of natural knowledge, of which we have little or nothing at all said in the writings of the Philosophers before him, such of them, at least, as yet remain. It may be true, however, that what he has given as his own discoveries on these subjects may have been taken from the books of the Pythagoreans then extant, but now lost. Thus much is cer-

tain,

* Jamblichus *de Vita Pythagoræ*, Cap. vi. versus finem.

† *Ibid.* Cap. xxix. p. 135.

‡ *Metaphys.* Vol. I. p. 61 and 62.

tain, that, from a Pythagorean author, the most antient of whom we have any thing extant, I mean Ocellus Lucanus, Aristotle has taken his notion of the Eternity of the world, and that there was no beginning of motion; and also the notion of a fifth Element. And from another Pythagorean writer, called *Eccelus*, he has taken his whole treatise of *Generation and Corruption*, almost transcribing it*.

But though I do not think that he has added any thing to natural Philosophy, he certainly added a great deal to natural History; and his History of Animals is, I believe, the best book upon the subject that has been produced since his time. It was his pupil Alexander, who enabled him to make so great a collection of facts. And there is an anonymous writer of the Life of Pythagoras †, who, in the end of his work tells us, that Alexander, at his desire, sent men to the highest parts of Ethiopia, where, I suppose, no Greek had ever been before, in order to discover the cause of the overflowing of the Nile; and they discovered, what is undoubtedly the truth, that the overflowing was produced by great rains which fall upon the high mountains of Ethiopia in the middle of summer.

As to *Morals*, I do not think he has added any thing of value to what he and his master learned from the Pythagorean School, from which he has taken one thing that is not to be found in Plato; viz. that the virtues consist in a middle betwixt two extremes, *excess* upon the one side, and *defect* upon the other; for this doctrine is expressly laid down in the treatise of Theages above mentioned concerning virtue, and illustrated by examples ‡. There is one virtue, of which he gives an account, very different indeed from that given by the Pythagoreans, and from them by his master Plato,
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* See the Authorities for this in Gale's Collection, p. 501 and 502.

† It is published along with Jamblichus and Porphyry their Lives of Pythagoras.

‡ Gale's Collection, p. 693, 694.

but, in my opinion, not near so philosophical; for they derive it, as well as the other virtues, from the nature and constitution of the human mind, with this difference betwixt it and the other three virtues, that these belong each to different parts of the mind; but justice belongs to all the three parts, as I have above explained it, and consists in the harmony and concord of these three with one another; so that it is the most comprehensive of all the virtues; whereas Aristotle has explained it, not as a Philosopher, but according to the popular notions, and applied it only to external things, such as *money, power, and honour*; which is no more than applying the general definition of the Pythagoreans to particular things comprehended under it. For it is impossible that if the other three virtues exist, and there be a perfect harmony in the mind, there can be any wrong done to others in the articles of wealth, power, or honour.

What has always pleased me most in Aristotle's morals is, the distinction which he makes betwixt *vice* and *weakness*, and betwixt *virtue* and that *restraint* and *endurance* which we see men practise, and which often passes for virtue; and as I did not find this distinction in Plato, I gave Aristotle great credit for it, believing it to be a discovery of his own; but when I came to study those Pythagorean fragments which Gale has collected, I was very much surprised to find the same distinction made, and, I think, better explained, by the Pythagorean Philosopher I have so often quoted, viz. Theages, in his work upon Virtue. The principle he lays down is, what I have already mentioned, that the *προαιρεσις* is essential to virtue; or, in other words, that virtue must proceed from free inclination, founded upon judgment and deliberate choice; therefore, says he, if with force and compulsion reason govern the *θυμος* and the *επιθυμια*, that is, the *irascible* and *concupiscent* parts of our nature; this produces those dispositions of the mind we call *εγκρατεια* and *καρτερια*,

that is, *restraint* and *endurance*; if, on the other hand, reason is forcibly overcome by the irrational part, then are produced either *ἀκρατία* or *μαλακία*, that is, *incontinence*, or want of command of one's self, and *softness* or *effeminacy*. Now these dispositions of mind are but half virtues and half vices; for reason is sound and healthy, but the irrational parts of the mind are diseased; and as far as the *θυμός* and *ἐπιθυμία* are mastered and compelled to submit by the rational part, so far *ἐγκρατεία* and *καρτερία* are virtues; but in so far as the irrational part submits with force and compulsion, so that the action may be considered as in some sense not voluntary, these dispositions are vices; for virtue must do its duty with pleasure, and not with pain; and nothing must be pleasant to the virtuous man but what is good and virtuous*. Again, with respect to *μαλακία* and *ἀκρατία*,
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* There is a fine sentiment to this purpose in Milton's *Comus*. It is where he makes the Lady say to the enchanter Comus (that is, *Pleasure*) when he offers her his delicious cup, as he calls it:

That which is not good is not delicious——

To a wife and well-governed appetite:

that is, an appetite in subjection to the rational part, and which is pleased with nothing but what Reason approves of: It is a noble sentiment, but expressed in a manner which will appear flat and insipid to those who admire the present fashionable style, far removed from the simplicity of the Antients. Milton was not only the greatest scholar and finest writer of his age, but a good philosopher, and was well acquainted with the fragments remaining of the Pythagorean Philosophy, as appears from his *Treatise upon Education*. His *Comus* is, I think, one of the finest productions of modern times, and I don't know whether to admire most the poetry of it or the philosophy, which is of the noblest kind. The subject of it I like better than that of the *Paradise Lost*, which, I think, is not human enough to touch the common feelings of humanity, as poetry ought to do; the Divine Personages he has introduced are of too high a kind to act any part in poetry, and the scene of the action is, for the greater part, quite out of Nature. But the subject of the *Comus* is a fine Mythological Tale, marvellous enough, as all poetical subjects should be, but at the same time human. He begins his piece in the manner of Euripides, and the descending Spirit that prologises, makes the finest and grandest opening of any theatrical piece that I know, antient or modern. The conduct of the piece is answerable to the beginning, and the versification
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in so far as reason is overcome by the irrational part, they are vices ; but in so far as they gratify the passions with pain and reluctance, knowing that they do wrong, so that the eye of the mind is still sound, they are not vices *.

There cannot, I think, be sounder philosophy than this ; for it not only agrees perfectly with experience and observation, but it is deduced from the inward structure of the mind, and therefore may be said to be demonstrated *a priori*. It gives that preference in the matter which is due to the governing principle of the mind, that is, the rational and intellectual part, which, of necessity, must determine whether the man be virtuous or vicious ; for if the governing principle approves of vice, and the man applauds himself for his vicious actions, then is he truly vicious : On the other hand, if the govern-

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of it is finely varied by short and long verses, blank and rhiming, and the sweetest songs that ever were composed ; nor do I know any thing in English poetry comparable to it in this respect, except Dryden's ode on St. Cecilia ; which, for the length of the piece, has all the variety of versification that can well be imagined. As to the style of the *Comus*, it is more elevated, I think, than that of any of his writings, and so much above what is written at present, that I am inclined to make the same distinction in the English language, that Homer made of the Greek in his time ; and to say, that Milton's language is the language of the gods ; whereas we of this age speak and write the language of mere mortal men. If the *Comus* was to be properly represented, with all the decorations which it requires, of machinery, scenery, dress, music, and dancing, it would be the finest exhibition that ever was seen upon any modern stage. But I am afraid, with all these, the principal part would be still wanting ; I mean, players that could wield the language of Milton, and pronounce those fine periods of his, by which he has contrived to give his poetry the beauty of the finest prose composition, and without which there can be nothing great or noble in composition of any kind. Or if we could find players who had breath and organs (for these, as well as other things, begin to fail in this generation), and sense and taste enough, properly to pronounce such periods, I doubt it would not be easy to find an audience that could relish them, or perhaps they would not have attention and comprehension sufficient to connect the sense of them, being accustomed to that trim, spruce, short cut of a style, which Tacitus, and his modern imitators, French and English, have made fashionable.

* Gale's Collection, p. 691, 692.

ing part still judges well, but is overcome by the violence of anger, or the allurements of pleasure, then, though there be not virtue, neither is there vice; but there is *weakness*, under which name are comprehended all the four dispositions above mentioned; two of them, viz. *restraint* and *endurance*, coming nearer to virtue, and by many confounded with virtue; the other two, viz. *incontinence* and *softness*, or *effeminacy*, come nearer to vice, and by those who are not able to distinguish accurately, confounded with it.

And here we may observe how just the notion of the Pythagoreans is of the virtue of *Justice*, without which they say there can be no perfect virtue; for it is it which produces concord and harmony in the mind; so that where it is not, there must be disorder and bad government: For if the governing power is overcome, and forced to submit to the passions and appetites which ought to be governed, then there is a state of rebellion; and though the governing power prevail in the struggle, and the subjects obey, but forcibly and unwillingly, even in that case the government is not good, nor is there that pleasure in virtue which the Pythagoreans maintained to be essential to it.

We may also here observe how false the common notion is, that there cannot be *virtue* without *self-denial*; for the contrary appears to be the truth, that where there is perfect virtue there can be no self-denial or reluctance, but on the contrary pleasure and even exultation: And though Aristotle says that the exercise of one virtue, viz. Fortitude, is not accompanied with pleasure, yet I believe he is mistaken: And I think Homer is in the right, who uses a word for fighting which denotes joy—*χαρμῆ*: And the fact is most certainly true, that a man really brave has a pleasure in encountering danger if there be a good cause for it; that is, if the governing principle of the mind approves.

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Thus it appears that Aristotle added nothing to the morals that he and his master had learned from the Pythagoreans: And, with regard to politics, it would, I think, be unfair to compare his unfinished work upon that subject with the books of polity and of laws written by Plato, whose works, upon morals and politics together, are of ten times greater bulk than his other works, whereas the greater part of Aristotle's writings are upon Natural Philosophy; at the same time it must be owned, that what he has written upon politics, unfinished as it is, is a very valuable work; and there is a Supplement written to it by a Florentine nobleman, of the name of Strozza, which is valuable for the matter; and, as to the style, he has imitated so well the style of Aristotle, the best didactic style I think in the world, especially in his morals and politics, that, for my part, I am not able to distinguish the one from the other; so well was the Greek language at that time not only understood in Italy, but written, and, as we are informed, even spoken.

I come now to speak of the greatest of all Aristotle's works, I mean his Logic, which he first distinguished from Dialectic: Whereas the Dialectic of Plato is a mixture of Logic and Metaphysics; for it ascended to the ideas of the highest abstraction, such as the *supreme good* and the *supreme fair*, and at the same time it taught the method of investigating those ideas. Now Aristotle distinguished all the three, I mean Logic, Dialectic, and Metaphysics, and made separate sciences of each; for among other things that Aristotle added to Philosophy, one was the distinguishing accurately the several branches of it, which before lay confused together, as it were, in a heap.

By Logic, Aristotle means that science which explains the progress of the discursive faculty of the Mind in demonstration or reasoning
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of any kind. The operations of the human intellect are of three kinds; first, we apprehend the simple idea of any thing; secondly, we perceive the truth of axioms or self-evident propositions; and, lastly, from these, by the *discursus mentis*, other propositions are deduced, which, in that way, are said to be proved or demonstrated. And this last operation of the Mind is what is properly called *Science*; and, to shew the nature of this operation, and how the Mind may proceed in it without hazard of error, is the business of *Logic*; which, at the same time that it directs the operation of the Mind in other Sciences, is itself a Science, so great and so wonderful, that if I could believe Aristotle to have been the inventor of it, I should consider him as something more than mortal man: Nor can I wonder that when Philosophy was first introduced into the western parts of Europe, after the fall of the Roman empire, the *Schoolmen*, as they are called, bestowed so much labour upon it; a great deal too much, according to the general opinion of this age; but be that as it will, I am sure it is much too little studied at present; and I very plainly perceive the want of the knowledge of it in almost all the works of Reasoning or Philosophy that are now published. It is so little understood that I must say something more to convince the generality of readers that it is of any value at all.

In the first place, we should consider how it is possible that we can be men of Science if we do not understand what Science is: Now the purpose of Aristotle's *Logic* is to discover what Science is, as he has told us himself in the beginning of his *Analytics*. To be convinced how great a work this was, we need only read the *Theætetes* of Plato, in which that question is agitated, and much is said upon it*; and I have no doubt but that it was with the view to decide what Plato has left altogether undecided, that Aristotle composed his system of *Logic*.

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* See what I have said of this dialogue, Vol. II. p. 68.

It may be said that men may reason very well, and have reasoned very well without knowing any thing of the Art of Reasoning. But women and children speak, as we see, very well, without any knowledge of Grammar or the Art of Speech; but will it for that reason be said that the study of Grammar is not useful. In like manner, men sing and play upon instruments, without the least knowledge of the Art of Music; and I have some pieces of the music of barbarous nations that I think admirable: But will it for that be denied that Music is an Art, or that our performances of the musical kind may be greatly improved by the knowledge of it. In all the Arts, the practice must have gone before the theory, and men must have spoken, sung, and reasoned, long before an Art of Speech, of Music, or of Reasoning, was invented.

Aristotle has very properly entitled his book upon Logic *Analytics*; for there could have been no Science or Reasoning without an analysis or resolution of it into its elements or first principles; and the same is true of all Arts and Sciences without exception. Thus there could have been no Science of Geometry if the dimensions of Body had not been analysed into Points, Lines, Length, Breadth, and Depth; there could have been no grammatical art if the material part of language, that is the Articulation, had not been resolved into elemental sounds; neither without that could the great discovery of letters have been made, or the writing art invented: And without the analysis of the formal part of language into what is commonly called the Parts of Speech, the most valuable part of the grammatical art never could have been invented: But the artificers of language, by analysing into a few radical sounds, differently varied and modified according to certain rules, have, with most wonderful art, contrived to express the almost infinite variety of the conceptions of the human mind; and this is the Art which appears

to me to have a greater affinity than any other with Aristotle's Logic, as both must necessarily dissect and examine carefully the operations of the human mind ; and accordingly Aristotle, in one of his logical works, *viz.* his book of *Interpretation*, has considered accurately some of the parts of speech into which grammar has divided language, such as the Verb and the Noun. Now, though the Art of Language be, no doubt, a most wonderful Art, and perhaps the greatest invention of men, if it be considered that it must have been among the first, I hold Aristotle's Logical Art to have been still a greater discovery, though coming, no doubt, much later, and, I believe, after every other Art was invented ; for it analyses what I think is still more various and complicated than Speech, I mean *Reasoning*, in all the various forms and figures in which it appears.

It is evident that all reasoning must consist of propositions put together in a certain way ; and these propositions again must consist of simple terms, joined together in a certain way. The analysis, therefore, of Reasoning must of necessity be such as Aristotle has made, first, into simple terms ; secondly, into propositions ; and, thirdly, into syllogism, which, as the name imports, is a collection of propositions from which the conclusion is inferred ; and there the process of Reasoning ends.

With respect to *simple terms*, it is evident that if they could not have been reduced to certain classes, there could have been no Science of Reasoning ; and it was necessary also that these classes should be reduced to a certain number, for in Science there is nothing infinite. Now this great and fundamental work of *Logic* is performed in the book of Categories, and without this discovery there could not have been, as I have shewed elsewhere*, a definition of

* Vol. I. Origin of Language, p. 74, et seq. 2d edit.

of any thing, nor, by consequence, Science or Demonstration of any kind.

The next step in the process of Reasoning is to Propositions, the nature of which it was necessary to explain, otherways there could have been no Science of Reasoning. This, accordingly, Aristotle has done with wonderful accuracy and subtilty in his book of *Interpretation*; the most abstruse, I think, of all Aristotle's philosophical writings, and which itself needs an interpreter more than any of his books; and accordingly it has met with an excellent one in a philosopher of the Alexandrian School, Ammonius Hermeias. It was necessary for the purpose of Science that Propositions should be reduced to certain classes, as well as the terms of which they consist. This has been done by Aristotle and his interpreter, and all the several specieses of them, according to the differences of the prædicate, the subject, the matter and manner of the Proposition, have been enumerated, and the number of them must appear incredible to those who have never thought upon the subject, being no less than three thousand and twenty-four*; and however unnecessary it may appear to distinguish so accurately and minutely the several kinds of Propositions, those who are learned in the Art know very well what confusion it would introduce into Reasoning, if we were to mistake an *affirmative* for a *negative* Proposition, a *particular* for an *universal*, a *necessary* for a *contingent*, and so forth.

The last operation, as I have said, of the discursive faculty of the Mind is Syllogism, to which all our Reasoning, however various and complicated, is reducible. Now every Syllogism, when it is analysed, is found to consist of three terms, and no more, and of two Propositions, from which the conclusion is inferred, and no

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more.—

* See Ammonius upon the Book of Interpretation, Folio 73. 128. and 176.

more.—It is shewn, that of these three terms there is one by which the two terms in the conclusion are syllogised or brought together, and which, from thence, is called the Middle Term—That in the two Propositions this term must one way or another be joined with each of the two terms of the conclusion, and this can be done only in one or other of three ways, by being the prædicate of both Propositions, the subject of both, or, lastly, the prædicate of the one and the subject of the other *. These three several ways of connecting the terms of the conclusion by means of the middle term Aristotle calls *Figures*, alluding, as his Commentators say, to the division used by the mathematicians of the subjects of their Art, into Points, Lines, and Figures, simple terms standing for Points, propositions for Lines, and syllogisms for Figures—It is further shewn, that these Figures are divided into Moods, according as the two propositions and conclusion of the syllogism are affirmative or negative, universal or particular; the first Figure consisting of four Moods, the second of as many, and the third of six, which make altogether fourteen Moods, or *Τετραποι*, as they are called by Aristotle—And lastly, that of every syllogism one of the two propositions or premises must necessarily be a general proposition either affirmative or negative; and that from two particular propositions, or two negative, whether general or particular, nothing can be syllogised.

If I should go deeper into this Syllogistical Art, very few of my Readers, I doubt, could follow me: I will therefore content myself with observing, that Aristotle demonstrates all his theorems in the manner of geometers, either directly or *ex absurdo*; and he uses a third method which is peculiar to Logic, I mean the conversion of propositions, by which he demonstrates, that one kind of proposition is convertible into another of a different kind; and it should re-

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* Of Propositions in general, and the difference betwixt the prædicate and subject, see what I have said, Vol. I. *Metaphys.* p. 375, et seq.

commend the study of this Science to our mathematicians, that, in order to make his demonstrations universal, he uses letters as universal characters, standing for all kinds of terms or propositions. Such symbols are used by algebraists, as is well known, and also by Euclid in his seventh Book, where he treats of numbers: And however intricate all this business of the Syllogism may appear, it is reducible to this simple axiom, *That the whole is greater than any of its parts, and contains them all*; the necessary consequence of which is, that if any thing contain the whole of another thing, it must contain all the parts of that other thing; and if, on the contrary, it do not contain but exclude the whole of that other thing, it must necessarily exclude every part of it. This axiom, which, thus explained, applies both to affirmative and negative conclusions of Syllogisms, is shortly thus expressed by the schoolmen: *Quod verum est de toto, verum est de omni* *. This system therefore of Aristotle has the greatest beauty that any system of Science can have, viz. that though it be so various in its consequences, it is most simple in its principles.

To prove how useful this Syllogistical Art is, in trying the force of every argument, and evolving the most intricate and perplexed ratiocination, and to explain how every kind of Reasoning is reducible to the form of Syllogism, and to shew that even the Mathema-

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tical

* The way that Aristotle expresses this fundamental principle of the Syllogism is as follows: Ὅλως γὰρ ὃ μὴ ἐστὶν ὡς ὅλον πρὸς μέρος, καὶ ἄλλο πρὸς τοῦτο ὡς μέρος πρὸς ὅλον, ἐξ ὁυδενὸς τῶν τοιούτων δεικνυσθὶν ἢ δεικνύων, οὐδὲ γὰρ γινέσθαι ὁ συλλογισμὸς.— (*Analytica Priora*, Lib. I. Cap. 41.) The meaning of which is, “That where there “ is not one thing that has the relation of *Whole* and *Part* to another thing, and where “ that other thing has not the relation to a third thing of *Part* to *Whole*, there can be “ no Syllogism.”—Or, as Philoponus has expressed it, “The greater term must “ comprehend the middle, and the middle the lesser.” See his Commentary upon the first Book of the *First Analytics*, Folio 86.

tical Reasoning is syllogistical, and all the steps of Euclid's demonstrations are so many Enthymema's, or imperfect Syllogisms, of which one of the Propositions, though absolutely necessary for the conclusion, is not thought necessary to be expressed *, would much exceed the bounds of a Preface, and would lead me too far from what I chiefly proposed, which is to give the History of Antient Philosophy, I will therefore confine what I have further to say upon the subject of Syllogism to two observations.

The first is, that the rules of the Syllogism, which were formerly so well understood by every man who pretended to learning, are now so little known, that though we use the syllogistical terms, and talk of major and minor propositions, yet we are not able to distinguish them, but commonly call the first proposition, according to our manner of arranging them, the major proposition, though it be truly the minor. Thus, when we say,

Every man is an animal;
Every animal is a substance;
Therefore every man is a substance;

We call the first proposition the major, whereas the second is truly such; because in it the greater term or prædicate of the conclusion, that is *substance*, is prædicated of the middle term *animal*; and if

we

* Aristotle, in the first Book of his *first Analytics*, Cap. 24, has taken the trouble to shew us, that all the steps of a geometrical demonstration are Syllogisms of the kind I have mentioned: For this purpose he has given us a curious demonstration of the fifth proposition of the first Book of Euclid; but it is so shortly expressed, and so obscurely for want of a diagram, that I should not have understood it, if it had not been explained by his commentator Philoponus, who has supplied the diagram (Folio 62, of his Commentary upon Aristotle's *First Analytics*). But now I understand it, I find it is much shorter, and, I think, it is full as clear as that of Euclid, and therefore a better demonstration.

we were to arrange the syllogism in its natural order, we should put it first, and say thus ;

Every animal is a substance ;

Every man is an animal ;

Therefore every man is a substance.

Where the propositions indeed are in their natural order, but the terms are not ; for the prædicates in both propositions, viz. *substance* and *animal*, should be placed first. But this the stunted genius of our language will not admit*.

2do. I would have those who call themselves Philosophers now-a-days, if they will not take the trouble to study the Syllogism in Aristotle's Analytics, to read, at least, Porphyry's Introduction to them, in which he explains the *five words* of great use in Logical language, viz. *genus, species, difference, proper, accident* ; and if they do not understand Porphyry, they have an excellent Commentary upon him, written by Ammonius Hermias. By studying this introduction, which may be truly said to be an introduction not only to Aristotle's Analytics, but to all Philosophy and Science of every kind, they will learn to distinguish betwixt the highest Genus and the lowest Species ; and they will be taught, that the intermediate classes betwixt these two are both *genuses* and *specieses* in different respects ; for it is of absolute necessity that every general idea should be either genus singly, or species singly, or both genus and species : And thus the whole universality of things is exhausted ; and we may say with Aristotle, *that besides these there can be nothing else.*

I proceed now to enquire, whether this wonderful discovery in science cannot be traced back to the parent land of all science, I mean Egypt ; and whether Aristotle did not get this, as well as the rest of his Philosophy, from that country, through the channel of the Pythagorean School ? and I will give my reasons why I think he did.

And

* See upon this subject, Metaphys. Vol. I. p. 376..

And in the first place, though I have a very high opinion of the genius of Aristotle, it is highly improbable, I think I may say, impossible, that one man, during the course of a short life, and a life too employed in so many different things, should not only invent, but carry to perfection, a science so complicated and so difficult; for that the science is perfect in the books of Aristotle is evident from this, that notwithstanding all the labour that has been bestowed upon this science since the days of Aristotle, both in antient and later times, nothing of any value hath been added to it, or if of any value, it was easily to be deduced from the principles laid down by Aristotle. Now all other sciences have required the successive labours of men living in different ages or nations of the world, to bring them to perfection. Thus, Geometry beginning in Egypt with the simple operation of measuring Land, which the overflowing of the river made necessary in order to preserve men's properties, came, in the course of many ages, to be a very perfect science in that country; and I doubt much whether any thing was added to it by the Philosophers of Greece. Now supposing that we had not known the history of this science, and that there had been no other work upon the subject extant, except the Elements of Euclid, would it not have been most absurd to have supposed that Euclid was the single author of so great a system of science, when it is likely that all that he did was to compile, digest, and connect, the discoveries that had been made by others in that science? The art of Writing, which I think a much less discovery than the Syllogism, was not certainly made at once, or by one man, but there was a progress in it, as I have shown elsewhere*: And as to the Art of Language, to which, as I have said, the Logic of Aristotle has a great affinity, is it possible to believe that it was at once brought to the perfection in which we see it was among the Greeks? Do not we see among the barbarous nations, and even among ourselves, how rude and imperfect our language is, compared
with

* Origin of Language, Vol. II. p. 230.

with the Greek? And is it not plain from the Latin language, which is a very antient dialect of the Greek, that there was a time when the Greek was not near so perfect a language as the same language in later times? I think, therefore, that Aristotle must have been not only *Δαιμονιος*, as the later Philosophers called him, but must have been much above even the *divine* Plato (so they called him), and, indeed, as I have said, something above humanity, if, in the space of so short a life, and so much occupied too with other things, he could not only have invented, but perfected, so intricate and difficult a science.

3^{tho}. Although my opinion of the abilities of Aristotle as a Philosopher be very great, yet I have not the same opinion of his candour and good faith. Even his own interpreters, as I have said, accuse him of misrepresenting the opinions of the Philosophers before him, in order that he might have the pleasure of refuting them; and I think we are obliged to one of these commentators, Simplicius, for so often defending those antient Philosophers against him, by whose labours, though he profited extremely, more, I believe, than any Philosopher ever did by the labours of others, yet he is so ungrateful as hardly ever to acknowledge it; but, on the contrary, arrogates to himself discoveries that were made by them. Thus, as I have already observed, he would make the Reader believe, that he was the first who maintained the Eternity of the world; and that all the Philosophers before him had asserted, that motion had a beginning; whereas it is certain, from a Work yet extant, that the Eternity of the World was a doctrine of the Pythagorean School; and I think there is the greatest reason to believe that it was maintained by all the Philosophers before Aristotle, without the exception even of his master Plato *. There is a book too of another Pythagorean Philosopher, which, as I have said, he has almost transcribed in his
book

* See what I have further said upon this subject, p. 258, et seq. Vol. I. Metaphys.

book *De Generatione et Corruptione*: Nor has even Plato acted with good faith towards the Philosophers before him; for he has no where acknowledged the obligations he owed to the Priests of Egypt, from whom, besides what he learned of Mystical Theology, particularly concerning the doctrine of the Trinity, which he kept as a secret, to be communicated but to a few of his followers, I have no doubt but he learned there to solve the Delian Problem, as it is called, I mean, to double the cube of the Altar of Apollo in Delos, which, from the account Plato himself gives of the state of geometry in Greece, it is impossible he could have learned there. And though he has taken his whole natural Philosophy from Timæus the Locrian, he has acknowledged the obligation no otherwise than by giving his name to one of his dialogues, and making him an interlocutor in it. And if Proclus had not preserved to us that most valuable piece of antient Philosophy, entitled *De Anima Mundi*, we should never have known that Timæus had written upon the subject, or that Plato had taken from that writing his whole Cosmogony*. In short, it appears to me, that the Philosophers in Greece wanted to persuade the world that all Science and Philosophy was originally of the growth of their country, which, I think, I have shown was far from being the truth†.

4to. But to come closer to the point; it is evident that Aristotle, among other Pythagorean books he got into his hands, being, as I have said, a great collector of books, got hold of a Treatise of Archytas

* I cannot help here contrasting the want of good faith and candour of Plato and Aristotle with a very different behaviour of another Philosopher of later times, viz. Jamblichus, who has given us a system of Arithmetic, but which he confesses he has taken, for the greater part, from the work of a Pythagorean Philosopher, Nichomachus by name. This he has told us in the introduction to his work, where he says, that he professes only to deliver what had been discovered by the antients upon the subjects, and particularly by Nicomachus, without adding or taking away any thing.

† The Pythagoreans themselves said, That all that was valuable in the Philosophy of Plato and Aristotle was taken from them. See Porphyry and Jamblichus in *Vita Pythagoræ*.

Archytas the Tarentine, entitled *περί του παντος*, or *of the Universe*, which contained the whole doctrine of the Categories, as it is contained in Aristotle's Work to which he has given that name. This we learn from the commentary of Simplicius upon that Work of Aristotle, wherein he has ingrossed almost the whole Work of Archytas, from which it appears that Aristotle has done little more than translate into Attic the Doric of Archytas; for his Categories are the very same in name, in number, and in nature, with those of Archytas; and there is only some difference in the way of arranging them*; but as to the method of explaining and illustrating them, it is exactly the same; and, in some instances, I think Archytas has explained them better than Aristotle. Even the terms of Art in this work he has taken from Archytas; for the word *κατηγοριαί*, which Aristotle has made the title of his book, and which, by many even of the antient interpreters, is supposed to be a word first used by Aristotle in a Philosophical sense, is the term used by Archytas to denote a prædicate; and he also uses the words *κατηγορουμενον*, and *ὑποκειμενον*, in the same sense with Aristotle; and likewise the terms *γενος* and *εἶδος*; and he distinguishes those general ideas into three classes, viz. the *γενος γενων* the *γενος εἰδων*, and the simple *εἶδος*, which is the common division made by the Peripatetics; for they tell us that all these ideas are either a *Genus*, having under it other *Genuses*, or a *Genus* having under it only *Specieses*, or it is a simple *Species*, having under it only Individuals; and therefore it is called by Aristotle's Greek interpreters, the *εἶδος ἐδικωτάτον*.

But this is not all that he has taken from Archytas; for there is another work of his which he has copied as faithfully, and, I think, rather at greater length, as appears from extracts which Simplicius

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has

* Thus, for example, Archytas has put the category of *ποσων* before *ποιων*, whereas Aristotle has arranged them contrary ways; and, I think, from the account Simplicius gives of the matter, for a very good reason.

has given us of it, in the same Commentary upon Aristotle's Categories. The work I mean is entitled, *περί των ἀντικειμένων*; that is, *Concerning Opposites*; upon which subject Aristotle has added a Dissertation to his Book of Categories, wherein he has followed Archytas most closely, particularly his Fourfold Division of Opposites is the same with that of Archytas, and expressed in the same words; and in explaining the members of this division, Simplicius has observed that Archytas is more full and accurate than Aristotle: And all this he has done, without so much as ever mentioning the name of Archytas.

The doctrine of the Categories Aristotle has very properly made the foundation of his whole Logical System; for, as I have observed elsewhere, there could have been no Science of Logic without it, nor indeed Science of any kind, as there could have been no definition. Now, I think it is highly probable that those Pythagorean philosophers, having gone so far in the Logical System as to have explained the nature of simple terms, that they would carry their investigations farther, to Propositions and Syllogisms.

4^{to}, This might not appear so probable, if we were not well assured that the Pythagoreans, in their School, had a complete system of Philosophy, comprehending not only Physics, Metaphysics, and Morals, but also Logic, or Dialectic, as it was then called. This we are told by Jamblichus, in his Life of Pythagoras, where he says that Science in general was treated of in that School, and the method of Demonstration, Definition, and Division explained, as may be learned, says he, from Pythagorean books yet extant*. Now I think it is certain that the Pythagoreans could not have explained what Demonstration was, without laying down the doctrine of Propositions and Syllogisms; at least Aristotle thought so; for the intention of his

* Sect. 161.

his Analytics, as he informs us in the beginning of them, was to show what Science and Demonstration were; and, in order to do this, he has thought it necessary to explain most accurately the nature of the Syllogism.

Lastly, There is a very curious fact reported by the Jesuit Father Pons, a missionary in India, concerning the Philosophy of the Bramins. He says, that besides other parts of Philosophy, they have a Logic, and the doctrine of the Syllogism, as perfect as it is to be found in Aristotle*; and he adds, that they have as many subtle disputes about the different kinds of Syllogism, as we had in Europe two hundred years ago†. Now I think it is not at all probable that the Indians invented so great a Science, and it is still less probable that they got it from the School of Aristotle, with which it does not appear that they had ever the least connection: It remains, therefore, that it came to them from Egypt, from whence they had the first rudiments of arts and civility, if we can believe either the books of the Egyptian priests, or the traditions of the Indians themselves: And there appears, at this day, such a conformity betwixt the antient Egyptians and the Indians in their religion, and particularly their veneration for the Cow, the doctrine of the Metempsychosis, their astronomy, and the division of the people into different professions, or casts, to which every one is by his birth allotted, that it is impossible but that the one nation must have copied from the other; and as there is not the least proof or probability that the Egyptians borrowed any thing from them, but, on the contrary, we are told, that the Egyptians imitated no other nation‡, it remains

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that

* *Lettres Edifiantes et Curieuses*, Vol. XXVI. p. 241.

† *Ibidem*, p. 246.

‡ Herodotus, Lib. II. Cap. 91. See what I have further said to prove that the Indians got their Religion, Arts, and Learning from Egypt. *Origin of Language*, Vol. I. p. 653 and 654, 2d edit.

they must have got their arts, their religion, their learning, and, probably among other things, the doctrine of the Syllogism from Egypt; for I think there is as little reason to believe that the Syllogism could have been invented by Pythagoras, or any of his disciples, as that it could have been invented by Aristotle. Nor do I think it could have been produced, except in a country such as Egypt, where there were a great number of societies of men, set apart for the purpose of religion and science, such as the colleges of priests in Egypt, who succeeding one another from father to son, and so carrying on their studies without interruption from generation to generation, through a long period of time, might at last have made this great discovery; for I do not believe that even, in that land of learning, the labours of one single man were sufficient both to invent and perfect such a system of Science as Aristotle's Logic. This system, I suppose, Pythagoras brought with him from Egypt, together with the rest of the Philosophy of the Egyptians; and from some of the books of his followers (for it does not appear that Pythagoras wrote any thing himself) Aristotle got it, as we know he did the doctrine of the *Categories*, which he has set at the head of his system of Logic, and also the doctrine of *Opposites*, and of *Generation and Corruption*.

Thus, I think, I have vindicated to the true authors this great discovery of the Science of Logic, as well as the rest of the Philosophy of Aristotle; and, upon the whole, have shown that what Porphyry, in the *Life of Pythagoras**, has informed us the Pythagoreans said, was true, that Plato, Aristotle, Speusippus, Aristoxenus, and Xenocrates, had taken and appropriated to themselves every thing that was valuable in the Philosophy of Pythagoras, with some small alterations: But some slight and trivial things which had been thrown out by the Pythagoreans among the vulgar, and were laid
hold

* Sect. 53.

hold of by those who had a mind to ridicule them, these they collected, and pretended they were the genuine doctrines of the School. And thus much for the History of the Philosophy of Plato and Aristotle.

As to the sects of philosophers in Greece which arose after their time, it is not necessary to say much, as it does not appear to me that they added any thing of value to Philosophy. Those of the Porch had the greatest vogue in later times; but it is true of them what Cicero says, that like thieves, who change the marks of the things they steal, they did little more than give new names to old things, adding withal some strange paradoxes which they maintained, and which, by their novelty, excited the admiration of many, and made that sect for some time very prevalent.

I come now to the History of Philosophy in later times, after Greece as well as Egypt had fallen: But as it continued the same Philosophy, differing only a little in form and shape, I will be very much shorter upon this period of its History than on the former.

After Rome had become Mistress of the World, she drew to her, among other things, Philosophy, Learning, and Arts, which followed glory and empire to that great city, forsaking Greece, where they had been so long fostered and nourished; for Dionysius the Halicarnassian tells us, that the Sciences and Arts in Greece were some time, before his age, become almost barbarous: But they were revived, as he tells us, in some degree, under the patronage of the great men of Rome*. As to Philosophy, it appears that the Romans, in antient times, caught a little of that Philosophy which Pythagoras

* *De Antiquis Oratoribus*, in initio.

thagoras introduced into Magna Græcia: They, as I observed before, erected a statue to Pythagoras, as the wisest of men; and old Cato the Cenfor, and Nigidius Figulus, are said to have been disciples of that Philosophy. But after the Greek Philosophy came among them, which was about the time of Sylla and Lucullus, it made a wonderful progress, insomuch that there was no man of distinction among them who was not addicted to one sect of Philosophy or another. But wealth, luxury, corruption of manners, and at last tyranny, soon put an end to it in Rome. While it lasted, however, it produced some very great men, and what virtue still remained among the Romans, was the fruit of Greek Philosophy, as I have elsewhere shown *. The last philosopher among the Romans was Boëthius, who was put to death by Theodoric the Gothic king, who then reigned in Italy; and, I think, it is a remarkable thing, that as the greatest family that ever was on earth, I mean the family of Hercules, ended in a Philosopher †, so the greatest nation that ever existed may be said to have ended likewise in a Philosopher; for Boëthius may, I think without impropriety, be called the last of the Romans. His works, I think, and particularly his treatise *De Consolatione Philosophica*, are well worth perusing, even by those who are learned in the Philosophy of Plato and Aristotle.

Philosophy and Arts, being revived in Greece, as the Halicarnassian has told us, flourished there for some time; so that, even while Rome was in all her glory, Athens was accounted the seat of learning. Thither Cicero sent his son to be educated, and there was formed the best poet, I think, the Romans ever had; I mean Horace: And if Virgil had lived to reside three years there, as he proposed, I am persuaded his *Æneid* would have been a much more perfect work than it is.

But

* Origin of Language, Vol. III. p. 458, et seq.

† Vol. II. Metaphys. p. 252.

But it does not appear that Science and Philosophy, after their revival, lasted long in Greece ; but, by a strange revolution in human affairs, they came back again to their original native country, Egypt ; for, about the beginning of the third century, there was a School of Philosophy established at Alexandria, which I have frequently mentioned in this work, under the name of the Alexandrian School : And there Philosophy was attended, as it should be, by the other Sciences and Arts, such as Geometry, Astronomy, Grammar, and Rhetoric ; for there continued to be professors of those Arts in Alexandria, and some of them most eminent men, down even to the taking of the town by the Saracens, and the second destruction of its famous library ; while in Italy, and all over the west of Europe, learning had been long before extinguished by the Goths and Vandals.

The founder of this famous School of Philosophy in Alexandria was Ammonius, surnamed Saccas, by birth an Alexandrian : He, like Pythagoras, wrote nothing himself, but only taught. His most famous scholar was Plotinus, who transgressed his Master's command to keep his Philosophy a secret, and wrote a book of Philosophy, of the most sublime and mysterious kind, and of which we may say, what Aristotle says of his Metaphysics, that it was published and not published *. His scholar was Porphyrius, a most eminent man in his time, who was dignified with the name of Philosopher, by way of eminence. He was not only a great Philosopher, but a man of very extensive learning, and was reputed, I think justly, the best writer of his age ; for his style has more of the art and elegance of the Attic composition, than any style of that age ; and this, I believe, is the reason why most of his Works have come down to us so incorrect, particularly one most learned work of his *De Abstin-
entia*,

* See what I have said of this Philosopher, p. 331, of this volume.

nentia, in which there are so many errors in the MS. that in many places it is not intelligible ; for that artificial Attic composition began not to be generally understood in those days, like the composition of Milton in our time ; and I remember that Photius, praising the style of Diodorus Siculus, says, that it was not too Attic* ; and therefore it is no wonder that great errors were committed by ignorant transcribers. Porphyry taught Jamblichus, who was likewise a great Philosopher, and of such reputation in his time, that he was dignified with the epithet bestowed on Plato of Θειος, or Divine. His curiosity made him endeavour to get up to the very source of Philosophy, and to enquire about what remained of it among the Priests and Hierophants in Egypt. This produced his book above mentioned, *De Mysteriis Egyptiorum*. He was not, however, so good a writer †, nor so universally learned, as his master Porphyry.

The scholar of Jamblichus was Plutarch, not he who wrote the lives, but one who lived much later, as late as the fourth century. Under him Philosophy had another revolution with respect to its seat and place of residence ; for it was brought back by this Plutarch to Athens, after a very long absence ; and the Academy and the Lycæum were again revived there. This branch of Ammonius's family had a pretty long succession ; for Plutarch was succeeded by Syrianus ; he by Proclus ; Proclus by Marinus ; Marinus by Isidorus ; and he by Damascius. Of this succession of Philosophers in Athens,
Proclus,

* There are some critics of this age who think Milton so Attic, that he does not write English ; but they ought to know, that the nearer the imperfect grammar of our language will allow us to bring our composition to the standard of the learned languages, the more beautiful it is.

† This is the judgment of Eunapius, the writer of his Life, who says, that his style wants those graces which that of his master Porphyry has ; meaning, that it had not that Attic elegance which I have observed in the style of Porphyry.

Proclus was by far the most eminent ; and from his life written by Marinus, his scholar and successor, he appears to have been a very extraordinary man, and more like to Pythagoras than any of those philosophers of later times. Like him he was believed to have communication with superior powers, and by a certain way of living, which they called *Kathartic* and *Theurgic*, to have raised himself above ordinary humanity, and, in some measure, to have separated himself from body, even in this life. Like Pythagoras, too, he applied himself to political affairs, though the state of the world at that time did not permit him to do any thing considerable of that kind ; for he was obliged to content himself with directing the small affairs of Athens, where he resided. And he may be compared with Pythagoras in another respect, that no man appears to have been more admired and revered by his followers.

From Proclus sprung a new branch of this Philosophy of Ammonius Saccas, which returned again to Alexandria, from whence it came, under the direction of one of the same name, but distinguished from the other Ammonius by the addition of Hermeias to his name. He was the scholar of Proclus, and in his school of Alexandria had many scholars, and among others Simplicius and Johannes Philoponus, of whom the last mentioned lived to see Alexandria taken by the Saracens, and the famous library there employed to warm the baths of those barbarous conquerors. It is to the writings of this Ammonius Hermeias, and to those of his two scholars just mentioned, that we are chiefly indebted for the understanding of Aristotle's works of abstruse Philosophy, or *Esoteric*, as he calls them, which to me at least would have been absolutely unintelligible without their assistance*.

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* The account I have given of the succession of these philosophers of the Alexandrian and Athenian School, is taken from Authors quoted by Fabricius, in his *Bibliotheca*

There is another Philosopher, who lived about the age of Proclus, that is, in the fifth century, who is not accounted an author or successor of any School of Philosophy ; but who, in my opinion, was a very great Philosopher. His name is Hierocles : He was an Alexandrian by birth, and taught Philosophy there. We have from him a Commentary upon the *Aurea Carmina* of Pythagoras, which, I think, is the best piece of practical Philosophy that ever was written, containing, at the same time, a great deal of the divine Philosophy of the School of Pythagoras, which the Author appears to have studied most diligently. There is also a work of his, or rather a fragment of a work, which Phocius has preserved to us, and, I think, is likewise of very great value. It is entitled *περί προνοίας και ἐμπαρμενης*, *de Providentia et Fato*, wherein he has reconciled the Order of Providence, or the Decrees of God, with the *Free Will* of Man, better than any other Author I have read : His style, too, is very good as well as his matter, and well deserves the eulogium of Phocius upon it, that it is not too much adorned, nor too Attic (to use a phrase of his, mentioned above), but plain and simple, and very well suited to philosophical subjects.

Before I proceed further in the History of the Philosophy of those later times, I will make an observation or two upon the philosophers of this great Alexandrian School : And, in the first place, it is to be observed, that these philosophers joined together the Philosophy of Plato and Aristotle, and maintained that they were the same, and that the master and scholar did not differ in any thing material. Ammonius Saccas, the founder of the School, first began this reformation of Philosophy, as Phocius informs us in the beginning

theca Græca, a most wonderful collection to be made by a single man, concerning the lives and writings of all the antient Authors, and of singular use to any man who desires to be informed of the History of Learning and Philosophy.

ning of the extract he has given us of Hierocles' book *upon Providence and Fate*. Before his time the Platonics and Peripatetics disputed together very fiercely, and set up the one Philosophy in direct opposition to the other. But Porphyry, the third from Ammonius, wrote several books to prove that the two Philosophies were the same. These are unfortunately lost*. The want of them I have endeavoured to supply as well as I could; and, by what I have said of those two Philosophies, I think I have proved, that, though they differed in some particulars, they agreed in the main, being both derived from the same source, namely, the School of Pythagoras.

And this leads me to another observation, that the Philosophers of this School joined to these two Philosophies a third, namely, the Philosophy of Pythagoras; and Suidas tells us, that both Syrianus and Proclus wrote books to prove that the Philosophy of Orpheus, Pythagoras, and Plato, were all the same†; and accordingly we find the writings of some of them, such as Porphyry, Jamblichus, and particularly Hierocles, full of the Philosophy of Pythagoras. Simplicius, too, the commentator upon Aristotle, appears to have collected very diligently the Pythagorean books, which even then were very rare and hard to be got, and other books of Antient Philosophy now lost, which makes his Commentaries upon Aristotle more valuable, in my opinion, than any other. There was, too, a Pythagorean philosopher by profession, Nichomachus Gerasinus, who lived about that time, of whom there is yet extant a most learned treatise

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* Fabricius, *Bibliotheca Græca*, Vol. IV. p. 257, where he quotes Proclus to prove, that Porphyry applied the decisions of Aristotle to clear the doubts of Plato: For it is certain that Plato has left many things undetermined, especially in Morals, which it appears to me evident that Aristotle intended to determine, and to answer the doubts which Plato had started concerning them in his Dialogues, where there is commonly more disputation than decision.

† See Fabricius's *Bibliotheca*, Vol. I. p. 111.

tise upon Arithmetic, in which the nature and properties of Numbers are investigated after the Pythagorean method, and a Science made of Arithmetic, which, as I have said, has not been done by any of our modern philosophers *.

Thus it appears that, in the Alexandrian School, those vain disputes betwixt the followers of Plato and Aristotle, which had prevailed so much before, were entirely laid aside, the two Philosophies joined, and traced up to their source the School of Pythagoras, and further back still, even to Orpheus, and what was to be found of Philosophy still in Egypt.

In the last place we may observe of what advantage Philosophy may be to those who profess it, even in the worst of times; for there could be no times worse than those in which the philosophers of the Alexandrian School lived: They may be said to have lived among the ruins of the antient world, I mean the Roman empire, which was then in the last period of its decline, the internal state of it being as much disordered as possible, while it was torn to pieces, and its provinces dismembered, by the incursions of barbarous nations from the East, North, and South. In this most miserable state of public affairs, and when the general corruption of manners must have made even private life very uncomfortable, we see those philosophers enjoying their Philosophy in perfect tranquillity; and if there had happened a convulsion in Nature as great as in the affairs of Men, they might have said with the philosopher in Horace,

*Si fractus illabatur orbis,
Impavidum ferient ruinæ.*

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* See the eulogium of this Author by Jamblichus, in Fabricius's *Bibliotheca*, Vol. IV: p. 6. There lived also about the same time another Pythagorean philosopher, of the name of *Moderatus*, frequently quoted by Simplicius in his Commentaries upon Aristotle.

They were not perhaps by Nature much better men than we ; though I am persuaded Pythagoras was by nature as well as by education a man far superior to any man of his time, or that has been since, and even something above man ; yet by means of Philosophy there were some of them exalted to a communication with superior minds, and to a degree of perfection and felicity much beyond human nature in its ordinary state, if we can believe what is related of them by cotemporary writers, who had the best opportunities of being well informed concerning them, being their scholars and most intimate companions ; as Porphyry was of Plotinus, whose Life he wrote, and Eunapius of Jamblichus, whose Life also he wrote. Such testimonies I cannot reject, unless I could be convinced that there were no Superior Powers who took any concern about men, or that there is no manner of life, or course of study, that can raise a man above the ordinary level, and exalt him to that communication with superior minds, which every Philosopher knows is the greatest perfection and happiness that human nature is capable of.

Having carried down this history of Philosophy to the invasion of Egypt by the Saracens, and there possessing themselves of Alexandria, then the seat of Philosophy and Learning, there remains very little more to be said upon the subject. Constantinople, after that event, was the only place where any Science or Philosophy remained ; but there the antient dispute betwixt the followers of Plato and of Aristotle was revived, and continued down to the taking of Constantinople by the Turks. At the head of those two factions of Philosophers were Georgius Gemistius Pletho, and Georgius Trapezuntius, the one on the side of Plato, the other the friend of Aristotle ; and their dispute continued, after they had both fled from Constantinople, and taken refuge in Italy.

The Reader may, perhaps, be surprised to hear, that even under the dominion of the Turks, the most indocile and uncultivable of

all barbarians * that we read of in History, the Greek Learning and Philosophy are not extinguished in Greece. In the Patriarch's University at Constantinople, Philosophy and the Sciences are taught in the antient Greek language, and the Professors there, as I am well informed, converse with their scholars in that language; and they have so far preserved the pronunciation of it, that they can distinguish betwixt the accents and the quantity, a distinction which no man in Europe can make, except in theory, and which is entirely lost in the vulgar Greek that is now spoken. This I was informed of by Dr. Trumbull, now in Florida, if he be yet alive, who was married to a Greek woman; and having been much at Constantinople and in Greece, and being himself a scholar, was well informed of the state of learning there †.

But there is a proof incontestable of the Greek language and Philosophy not being yet lost in Greece, to be seen in a book printed at Leipzig, in 1766, written by one Eugenius Diaconus, in pure Attic Greek, containing a very good system of Logic. He was first a Professor in a College situated somewhere near to Mount Athos; then he was made a Professor in the Patriarch's University at Constantinople; and is now, as I am informed, a Bishop in Russia ‡. Of this Work I have made good use in my First Volume of Metaphysics, in solving a difficulty which I could not find solved in either Plato or Aristotle, concerning the same idea, containing and being contained in another idea; upon which, being clearly explained, depends nothing less than the truth of Syllogism §.

Whether

* See Origin of Language, Vol. III. p. 441.

† See what I have further said on this subject, Origin of Language, Vol. II. p. 295.

‡ See a quotation from this Work of his, in Vol. I. of the Origin of Language, p. 45, of the Second Edition.

§ See Antient Metaphysics, Vol. I. p. 479.

Whether it be the Platonic or the Aristotelian Philosophy that prevails at present among the learned of Greece, I do not certainly know; but from the work of Eugenius Diaconus above mentioned, it should seem it was the Aristotelian, for his system of Logic is altogether Aristotelian; nor, indeed, could he find a system of Logic any where else.

Of the revival of the Greek Philosophy in Italy, I have given some account in the 24th Chapter of the 4th Book of the Third Volume of the Origin of Language. It was brought about by some learned Greeks who fled from Constantinople, when it was taken by the Turks, into Italy, and were protected and patronized by Cosmo and Laurentius of Medicis in Florence, and at Rome, by Pope Leo the Tenth, of the same family. Those learned Greeks were obliged to submit to the drudgery of learning the Latin language in Italy, which, at that time, was intirely lost in the East, and of translating the Greek Philosophy into Latin, a language much inferior, and much less proper for Philosophy*. This ungracious task was imposed upon them by the Popes, who wanted that all learning should be in the language of the prayers of their church. If they had been otherwise inclined, I am persuaded they might very easily have made the Greek the language of learning; for it was so much in fashion in Italy after the Greek Refugees came among them, that even the ladies not only understood it, but spoke it; and some learned men about that time wrote it most elegantly; and about the beginning of the

* See Bruckerus's History of Philosophy, Tome. IV. p. 64.—Where the Reader will see how much they laboured, and how successfully, to acquire the Latin, which must have appeared to them little better than a barbarous language compared with the Greek. Bruckerus there tells a story of one of the most learned of them, Theodorus Gaza, who having translated Aristotle's History of Animals into Latin, was so ill rewarded, as he thought, for his pains, that he threw the money he got into the Tyber.

the next century, Strozza, a Florentine nobleman whom I mentioned before, added two books to Aristotle's Books of Polity, written, as I have said, in choice Greek. But, as it happened, I think it is well that more of the Greek originals have not been lost, and only the translations preserved; for it is very natural to suppose, that after the translation was published the original would be neglected, or perhaps destroyed, to make the translation more valuable; and accordingly some very valuable originals have been lost, particularly a most valuable Commentary upon the Metaphysics of Aristotle, of Alexander Aptnodiscienfis, the first who wrote commentaries upon Aristotle, and who is reckoned one of the Successors of his School, which is extant only in Latin, and in Latin scarce intelligible. Besides some other valuable antient works that are in the same condition, there is a work which I am very desirous to see, of Porphyry upon the Pythagorean Philosophy, which is also published only in a Latin translation, and that a most wretched one, as Holstenius, a very good judge in those matters, informs us*. The original of this Work, Fabricius tells us, is still extant in some library which he names, and if there were any curiosity about antient Philosophy yet remaining, would no doubt be published; as would likewise, a Commentary upon the Metaphysics of Aristotle by Asclepius Trallianus, a scholar of Ammonius Hermeias, which is still extant in MS. but never has been published†. And besides this commentary, there are many more upon Plato as well as Aristotle to be found in the Escorial library, which never have been published, as appears from a catalogue of that library which I have seen.

The great Greek authors, however, upon Philosophy as well as other subjects, were published in the original language soon after the restoration of letters; not only Aristotle was so published, who before

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* See Holstenius in *Vita Porphyrii*.

† See Fabricius's *Bibliotheca*, Vol. II. p. 282.

was only read in a Latin translation from the Arabic, but also some most valuable commentaries upon him, such as those of Simplicius, and Johannes Philoponus, without which, as I have said, I do not think his works of abstruse Philosophy could have been understood. But there has been no second edition of these Commentaries, so that they are very incorrect; nor is there any Latin translation of them, though I think that is not so much to be regretted. Some of the works too of the later Philosophers of the Alexandrian School were published about this time, particularly those of Plotinus, the most profound and obscure of them all. And in general, the Greek Philosophy was very much cultivated in Italy for about a century after the restoration of letters; and while the Jesuits were the teachers of youth there, it was very diligently studied, particularly in the Roman College at Rome, where they were the masters*.——By the destruction of that learned order, I am afraid Philosophy and Learning upon the Continent have got a blow that they will not soon recover.

From Italy, France got the Greek Philosophy, as well as the Greek Learning, where it was much studied for some time, and sundry books of it were published by the two Stephens.

In England it was the only Philosophy known as late down as the middle or end of the last century. It was taught in both Universities, and was the Philosophy of Hooker, Cudworth, and in general of every man in England who applied himself to Philosophy, also of Milton, who was not only a great scholar and excellent poet, but had studied diligently the antient Philosophy, and had gone up even to the source of it, I mean the School of Pythagoras; for it appears, as I before observed, from his Treatise upon Education, that he had studied what remains of that Philosophy (the Locrian Remnants he calls them), and knew the value of them†.

VOL. III.

I

What

* I had occasion to be informed of the method of education there, by a gentleman who himself was educated there, and I thought it excellent.

† See what I have further said of Milton's Knowledge of Antient Philosophy, Vol. I. p. 39. where the single use of the word *Accident* shews that he was more than ordinarily learned in the Philosophy of Aristotle. See also, p. 28, of the same Volume.

What Philosophy has come among us in place of the antient is well known, and lamented by all lovers of religion and true learning. The late Mr. Harris, my very learned and worthy friend, has the honour of first attempting to revive the antient, and if my endeavours shall have any success, they are also to be ascribed to him; for it was he that first gave me a taste for that Philosophy; and till his *Hermes* was published, I did not so much as know that such commentators upon Aristotle as Simplicius and Philoponus had an existence; without whose assistance, as I have more than once said, I could have made nothing of Aristotle's Philosophy.

To conclude this very long Preface. If the Philosophy of our ancestors is to be restored, and not entirely lost among us, as I am afraid other things are belonging to them, I think I may claim the merit of having laid before the Public such subjects of enquiry as must excite the Philosophical spirit, if there be any of it yet remaining in the nation.—As, *imo*. Whether body moves itself; or whether there be not in it a principle of motion different from body, such as Aristotle supposed, and has made the foundation of his whole natural Philosophy, and which can be nothing else but mind.—And here I cannot help observing, that I regret the loss of antient Philosophy for nothing more than this;—that for want of it, we have not been able to put Sir Isaac Newton's Astronomy (a system of science which does honour, not only to the English nation, but to modern times, more than all our other much boasted discoveries put together), upon principles that are not either absurd or impious.—To maintain that the heavenly bodies go on by virtue of an impulse given them so many thousand years ago, is absurd in the highest degree, as I think I have clearly shewn; and, indeed, Sir Isaac Newton does not say so, nor any of his followers who rightly understand his system. And whoever maintains that they are moved by a *vis insita*, or, what is the same thing, that they move themselves, is not a Theist, though he may imagine himself such. And if he goes further, and believes that those bodies act upon one another at such immense distances, and particularly that the moon is the efficient cause of our tides *, which, I

* See Vol. II. p. 377.—This Vol. p. 297.

believe, is the opinion of most of the Newtonians, I cannot help saying, though I should give offence, that he is more an Atheist, if possible, than Epicurus; for Epicurus did not believe that matter could act upon matter, except by contact; whereas, to make bodies act upon bodies at such distances, is to give more power to body than we know is in mind, which can only act where it is present. Of such imputations I think I have fully acquitted Sir Isaac Newton, by shewing, that when he began to philosophise upon the principle of motion, which was not till he wrote his queries, he philosophised rightly; and as to body acting upon body at a distance, he has declared his opinion, that no man can believe it *whose principles of understanding are not wholly subverted**; to use an expression of Mr. David Hume's, which he has applied very differently, namely, to those who believe in the Bible History.

2do. Another subject, of which I have treated in this Work, must be allowed to be a matter of curious enquiry for a Philosopher; viz. Whether it be the Supreme and Universal Mind that moves all unorganized bodies, or a particular mind that moves each of them, such as moves animals?

3tio. It is also a subject of important enquiry, what is the principle of virtue?—Whether selfishness, benevolence, or perception of truth, according to the notion of different Moderns; or whether, according to the Philosophy of Plato, Aristotle, and the Pythagorean School, it be not the sense of the beautiful in sentiments and actions that constitutes virtue; and whether that sense be not the governing principle of the intellectual nature?

4to. It is a subject of still more extensive enquiry, what is the nature of man?—Whether he be composed of three distinct substances, the vegetable, animal, and intellectual minds, all wonderfully united in one body; or whether he be any thing more than a meer animal?

5to. Whether, upon the supposition of man being thus compounded, there be not a progress in the species as well as in the individual, from the mere animal to the intellectual creature?

* See Sir Isaac's own words quoted, Vol. II. p. 376.

6to. Whether in this progress he must not have been much altered both in body and mind? And whether it be possible, by the nature of things, that he should have passed from the natural life, that is, a life without any of the inventions of art;—such as houses, clothes, the use of fire, of the flesh diet, and strong liquors,—to the artificial life we now lead, and not have been much impaired in body, and bodily faculties, such as health, strength, longevity, and size of body, whatever improvements may have been made upon his mental faculties? And whether we are to reject, in this matter, the authority of all the great Authors of antiquity, from Homer down to Solinus; and believe that Homer, when he makes Nestor say, that even in his time men had degenerated, meant to represent, in place of a hero, and the first of all the heroes for wisdom and counsel, a prating old man, such as was exhibited in the Comedies of after times?—

Difficilis querulus laudator temporis æli.

Se Juvene.——

That Virgil also, when he mentions,

Magnanimi heroes nati melioribus annis,

speaks foolishly, and with the prejudices of an old man, though he did not live to be old; and that he exaggerates most ridiculously, the strength of one of those antient heroes, when he makes him throw a stone, that scarce twelve men of his time could raise from the ground.—That Horace, the best Philosopher in my opinion, as well as the best Poet the Romans ever had, breathes a fond foolish wish, when he says,

———*O utinam inter*

Heroes natum, tellus me prima tulisset;

and that he philosophises very improperly, when, from the invention of fire, that is, the beginning of the civil and domesticated life, he derives diseases, and the shortning the life of man.

———*Post ignem ætheræa domo*

Subductam, macies & nova febrim

Cobors incubuit terris,

Semotique prius tarda necessitas

Lethi, corripuit gradum.

And

And when he lays it down dogmatically, and applies it, not to any remote period, but to his own time, and says,

*Ætas parentum, pejor avis tulit,
Nos nequiores mox daturos
Progeniem vitiosorem.*

—That Solinus must have lied (for he could not have been mistaken) when he says, that in his time scarce any man was born of the size of his parents*. And another very much later Author, Johannes Baptista Porta, who wrote in the beginning of the last century, must have lied also, for no reason that I can imagine, when he gives such an account of the size of the people in Europe in his time†. And lastly, when we join to all those testimonies the authority of Moses, who, setting aside his inspiration, and considering him merely as an historian, is the most accurate of all historians with respect to genealogies, and the length of generations, and who is supported (if he needed any support) in what he says of the long lives of the ancestors of his nation, both before and after the flood, by the testimony of several heathen writers, can we believe that men have been always the same in all ages and nations, without rejecting the authority of all history, both sacred and profane, as well as the opinions of Philosophers and men of Letters?

Lastly, It is to be considered whether the degeneracy must not have gone on still faster in modern times, by means of vices and diseases, unknown in the antient World? And whether, upon the whole, there be not good reason to believe, that man is not destined by God and nature to be always on this earth, at least in the same state he is now in; but that the species, after running a certain course, is doomed, like the individual, first to decline and decay, and then pass into another state.

This picture, it will be said, of the present state of mankind, is a most melancholy one.—But we must know the disease before we can

* See page 156 of this Volume.

† Ibid. page 158.

can apply remedies, if not to cure it, at least to retard the progress of it, as we do of old age and death in the individual; and besides, it is some comfort to know that our case at present, however lamentable it may seem, is not singular, but that it has been the case in a greater or less degree, of all civilized nations, as far back as we have any history or tradition of man.

How this state of mankind is to be reconciled to the providence and goodness of God, will be the subject of the next Volume; where it will be shewn, that as the universe is a system, it was of necessity that an imperfect intelligence, such as ours, being united to an animal life, should sooner or later consume it; but that in doing so, it is in its progress towards the greatest perfection its nature is capable of, and to which it will attain, if not in this life, at least in the life to come.

In the mean time, from what has been said, some important practical consequences, both as to publick and private life, may be drawn.

And in the first place, As wealth and luxury have introduced among us an almost universal corruption and dissolution of manners, it appears that Philosophy is as necessary to preserve any virtue and wisdom among us, as it was among the Romans, when they were in the same state*; nor is it possible, in my opinion, that any man of this country, though in the most prosperous circumstances of fortune, can be happy without Philosophy in some degree. In a nation where the manners are not corrupted, and the discipline both of the state and of families is preserved, men may, no doubt, live happily, as far, at least, as the enjoyment of things of this life goes. This was the case of the Romans in the first ages of their state, among whom Philosophy would then have been as superfluous as it became afterwards necessary; but no body, I believe, will say, that it is our case at present.

2do.

* See with respect to the Romans, Vol. III. of the Origin of Language, p. 458, et seq.

2^{do}. We ought now to be convinced, if not before, that what Plato has said is strictly true,—That there will be no end of human misery till Governors become Philosophers, or Philosophers Governors;—and that our present humiliating state is owing to the want of Philosophy and true political Wisdom in our Rulers, by which they might have seen things in their causes, not felt them only in their effects, as every the most vulgar man does*; and by which foresight, all the mischiefs that have befallen us might have been prevented.

And 3^{tio}. Whether, fallen as we are, we may not still make a respectable figure by being the seat of Philosophy and Learning, like Athens or Alexandria of old; and in that way, if in no other, give laws to Europe.

These are considerations which I have been led into by the nature of the subject I am treating, and which I humbly suggest to the great among us, wishing them to consider whether, in the present situation of our affairs, they can serve their country better than by encouraging good Learning and Philosophy, and endeavouring, in that way at least, to restore the antient glory of the nation.

If, by suggestions of this kind, I can be of any use to my country, I shall be very glad of it; but as to what is commonly called the *Public* I am not at all solicitous about the reception they give this work of mine; for I have elsewhere said, that it is not for them I write, so much as for myself†. In collecting the learning of antient times I have as much pleasure as any miser in amassing wealth, and I am sure I have more enjoyment of it than he of his money; for my

* This is well expressed by Homer, *πεχθεν δε και νηπιος εγω*, one of the shortest and finest *γινωμαι* in that Poet.

† Preface to Vol. I. p. 2 and 9.

my memory being impaired, more I believe by committing my thoughts so much to writing than by age, when I want to enjoy over again any speculation which once gave me pleasure, or to find out upon what authority I have advanced certain facts and arguments, I have recourse to the works I have printed, of which I have a much readier use than of those that are lying by me in manuscript. I have therefore no reason to accuse the Public of ingratitude, however ill they may receive my work; and the Gentlemen Reviewers are at full liberty to reproach me, as I hear some of them do, with the small demand that there is for my works, or to blame me for preferring the old musty philosophers to such a philosopher of this age as Mr. David Hume; and to observe that my style is not *elevated*; by which I understand that they judge of styles as Mr. Bayes does in the Rehearsal, and only praise a style that *elevates and surprizes*; whereas I am contented if my style be simple and natural, without any other ornament besides propriety and perspicuity. Such readers and critics will pardon me, if I neither suit my matter to their capacity, nor my style to their taste; for my work is not at all of the popular kind, and such is the fashionable taste of writing at present, that if it pleased much, I should be afraid it resembled some late publications that have had a great vogue. There are however certain critics, some of whom I have the honour and pleasure of knowing, who, if they did not approve of my matter and style in general, though they may differ from me in sundry particulars, I should indeed be soundly mortified. Of my intention in writing; I think it is impossible but that every good man must approve, since it is no other, than, first, to put down that materialism, which, if it go on, will put an end to the belief of a God, at least among those who think themselves Philosophers, and then to shew that the Providence of God is over all His works, the moral as well as the natural world, and that it is as consistent with His wisdom and goodness, that the species man should decay and decline, as that the individual should do so, and that both are equally necessary in the system of the Universe.

INTRODUCTION.

THE subject of this part of my work is MAN, the most various, as well as the most excellent Animal on this our earth, who, in the different states he passes through in his wonderful progress, is more different from himself, at least with respect to his *Mind*, or principal part, than any other Animal we know. That such an Animal is a fit subject for Philosophy no body will deny; but it may be thought that he does not belong to Metaphysics, or the First Philosophy, but to what is called Moral Philosophy. It will, however, appear, from the subject of the last Book of this Volume, for the sake of which all the rest of it is written, that the question there handled belongs to the most abstruse Philosophy, and is metaphysical in the highest degree.—In the preceding Volumes of this work, I have inquired into the origin and continuation of Motion, without the knowledge of which, it is evident, there can be no Philosophy of Nature. In this inquiry, I have argued, I hope, successfully, against the Materialists, and have shown that Motion can neither be begun nor continued by any power in Matter, but by Mind only. I have also, in the preceding Volumes, asserted the freedom of the Human Will, and have shown that it is determined by no material necessity, nor by any necessity, except what is essential to every intellectual nature, and is consistent with the most perfect freedom*. In this Volume, I propose to inquire concerning the origin of Moral Evil, and to show that it is not only of absolute necessity in the system of the Universe, but perfectly reconcileable with the Providence of an all-wise and all-good God.—The design, at least, of such a work, however lamely it may be executed, will deserve the praise of the wise and good among us.

VOL. III.

A

ALL

* Vol. I. lib. 2. cap. 21

All good philosophy being founded on facts, I have thought proper to give a history of Man, through the various stages of his progression, from the Vegetable upwards to his Intellectual State. As it is Intellect that forms what is properly called Man, and constitutes him a social and political animal, I have enlarged much upon that state, and marked the several gradations, from the mere animal up to the most perfect state of society, and downwards to the most corrupt and worthless, which closes, according to my apprehension, this scene of Man.

A N T I E N T

A N T I E N T M E T A P H Y S I C S.

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B O O K I.

Of the several Substances of which Man is composed, and particularly of the Vegetable Part of his Composition.

C H A P T E R I.

The Universe the System of Systems, comprehending an infinite Number of Systems.—Of the Systems on this Earth.—Man the chief of these Systems.—Of the gradual Ascent of Beings on this Earth.—The Knowledge of Man absolutely necessary for the Knowledge of God.—Man being a System, must be analysed into the several Parts of which he is composed.—These are three, making the proper Division of this Work.

THE proper subject of the First Philosophy is the System of the Universe, by the study of which only we can have any comprehension of its great Author. This to attain, is the ultimate end of all Philosophy, and the perfection of human nature.

The Universe may be called the *System* of *Systems*, being composed of an infinite number of parts, each of which is a System by itself, yet all parts of the Great System; for it is impossible that the Supreme Intelligence can produce any thing but in System; nor can Human Intelligence produce, or even conceive any thing, as I have shown *, but in that way.

There is one part of the Universal System that has been the subject of much speculation of late years, I mean this our Solar System. Astronomy is the Science that treats of this System; of the principles of which I have said a good deal in the end of the Second Volume. That there are many other Systems in the Universe resembling this our System, cannot be doubted: But, in our System, there are several other Systems; for each planet must be a System by itself, probably composed of Mineral, Vegetable, and Animal kingdoms, and, I doubt not, of Intellectual Natures. What the nature of these several kingdoms, or Systems of Being, in the other Planets, may be, or whether there may not be there other Systems, of which we have no comprehension, is impossible for us to determine; but we know certainly that these several Systems are in our earth, and that each of these has under it other Systems; so many in number, that to us they appear infinite. The animal kingdom, for example, has under it more specieses than have been yet discovered, which have each of them a system of its own, preserving the individual, and continuing the race, according to certain established laws; and each of these specieses has under it individuals without number, every one whereof is a System by itself.

Minerals, Vegetables, and Animals, are all comprehended under the subject of Natural Philosophy; But Man, the only Intellectual Nature here below, is made the subject of a philosophy by himself, which, by Aristotle, is called the *Human Philosophy*. Nor is this
without

* Vol. II. p. 132.

without reason ; for Man is undoubtedly at the top of the scale of Being here on earth, which we may observe rises by gradual ascent, according to the different degrees of excellency of the Beings that compose it. Those of the lowest kind are the mere elements of Fire, Air, Earth, and Water. Next to these is the Mineral, of nature more various and more excellent, but without that distinction of parts of different kinds, and serving different purposes, which we call Organization. By the addition of this the Vegetable becomes more excellent than the Mineral, being of more various and artificial structure, and, consequently, having more of Intelligence displayed in it. The Animal having, besides Organization, Sensation, Appetites, and Desires, is of a nature still more excellent : And, last of all, comes Intellect, which is so much superior to all the other things I have named, that *Man*, who possesses it, may be said to be the God of this lower world. Man, therefore, is undoubtedly a proper subject for philosophy ; and, as it is only by the study of him that we can ever attain to any knowledge of the God of the great world, the science of Man may be considered as belonging to the First Philosophy, being of absolute necessity for understanding what is highest in that Philosophy, viz. Theology ; and the question above mentioned, concerning the origin of evil, is as much a metaphysical and theological question as any can be.

Man being, as well as every thing else in the Universe, a System by himself, in order to consider him philosophically, we must analyse his System into the several parts of which it is composed, and examine each of them by itself, particularly his Vegetable, his Animal, and his Intellectual part, which makes the proper division of my subject into three parts. Under the first of these heads I will also say something of the Elemental part of his composition.

C H A P. II.

Objection, That there is but one Mind in Man, not four, as is supposed.

—Three Answers to this Objection.—2d Objection, That there is but one Mind in the Universe—This the Doctrine of Dr Priestley and of Spinoza.—A particular Account of Spinoza's Philosophy.—Spinoza's God not the Anima Mundi of Antient Philosophy.—3d Objection, That there is no Mind in us but the Intellectual.—This answered.—Of the Tetractys of the Pythagoreans.—Confession of two Mistakes committed by the Author.

MAN is not only a System in himself, but he is composed of several distinct substances, belonging to different Systems; for he has in him, *first*, the Elements of Fire, Air, Earth, and Water, animated by that Mind, which I call the Elemental Mind; *2do*, The Vegetable Life, by which he grows, and is nourished; *3tio*, The Animal Life, by which he has Sensations, Appetites, and Desires, and feels Pleasure and Pain.—So far he is not more a composition than any other Animal; but he has, *4to*, The Intellectual Mind, which makes him the most various Animal, and the most wonderful composition that God has produced here below.

There are, I know, who think that I make this composition of Man more wonderful than it truly is, and that I suppose four several Minds, when one may do the business. For one Mind, they say, may move the Elements of which he is composed, may make him grow and be nourished, may give him sensations, and likewise ideas
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and ratiocination. In short, the Elementary, the Vegetable, the Animal, and the Intellectual Life, may be all qualities or Accidents of the same Mind.

But, in the *first* place, it would be very extraordinary, if the same substance had qualities so exceedingly different ; for what can be more different than the power of nourishing and making to grow, and the faculty of thinking, reasoning, and reflecting ; and are not the sensitive power, and the power of simply moving Body, very different from either, and from one another ? As, therefore, the several qualities of the same substance have always some connection or similarity to one another, it cannot be presumed that the same Mind would have qualities so entirely unlike to one another.

2do, If we could suppose that the same Mind could, in the same instant, reason and reflect, carry on the Vegetation within us, by which we grow and are nourished, and likewise the Animal oeconomy, it would be giving a power to the Human Mind, which no inferior created Mind is understood to have, of being in different places, and performing so many different operations, and all in the same instant : In short, it would be, in some degree, giving an omnipresence to the human Mind.

Lastly, If the several Minds, of which I maintain that Man is composed, nowhere existed separately, there might be some reason to suppose that they were all qualities of the same Mind. But the Elemental Mind in our Bodies exists by itself in every unorganized Body ; the Mind, by which we grow and are nourished, in every Vegetable ; the Animal Life in every Brute ; and no Theist will deny that the Deity is pure Intelligence. Here, therefore, we have all these different Minds, constituting so many different Substances, existing by themselves. Now, it is impossible to conceive that a separate Substance should be a Quality or Accident of another Substance : For, to suppose that Substance might be
Accident

Accident, or Accident Substance, would be to confound all Nature, and take away a distinction, which is the foundation of all Logic and all Philosophy.

As to the difficulty of conceiving how so many Minds can be joined in one composition, it is much more difficult to conceive how one Mind can be united with one Body ; for no two Minds are of natures so heterogeneous as Mind and Body.

There are others who make this matter still more simple, by maintaining that there is but one Mind in the Universe, the author, immediately and directly, of all the Motion in the Universe. The consequence of which is, that there is an end of the distinction, which I, following the antient philosophers, have made betwixt the Intellectual, the Sensitive, and the Vegetable Life. For, not only Vegetables, but all Animals, and, among others, Man, are, according to this doctrine, mere Machines, having no Mind of their own, but moved directly and immediately by the Supreme Mind. This is the Philosophy of Dr Priestley. Before him, Mr Baxter had maintained, that inanimate Bodies were so moved ; but he allowed that Men, and, I believe, other Animals, had Minds of their own. But, as I have observed elsewhere *, Dr Priestley argues more consequentially, when he says, that, if we admit Man to be moved by a Mind of his own, we must admit other Bodies likewise to be moved by their own Minds, because they are moved in the same way, that is, internally, as Mind moves Body, and not from without, as Body moves Body.

I have argued a good deal against Dr Priestley in the Second Volume of this work, and I shall only add here, that the Doctor, whether he knows it or not, is a Spinosist : For Spinoza was no Atheist, any more than, I believe, the Doctor is ; for he has asserted, in the clearest terms, that there is a Being eternal, infinite, all-wise, and all-

* Vol. II. p. 58.

all-powerful. This Being is the only Mind in the Universe; and, as he does not consider mere Matter, inanimated, to be a Substance, (in which, I think, he is in the right), this Being is therefore the only Substance; the consequence of which is, that every thing in the Universe is animated by him, and he is the immediate author of all Motion, Life, and Thought; so that those Minds which appear to us to be distinct and separate Minds, and to have powers and energies belonging to themselves, are nothing else but the Divine Mind operating in different portions of Matter; and such, he says, among others, the Human Mind is. In this way he pretends to explain the definition of God which is given us in Scripture, by which he is said to be, *he that is, or exists*; by which words is commonly understood to be denoted, a Being that is self-existent, and from which all other Beings derive their existence*; whereas, according to Spinoza's philosophy, they denote a Being who alone exists, and who is the only Substance in the Universe: For Spinoza endeavours to reconcile his system with the Scripture; and, as we are told by the editor of his works in the preface, he pretended to be a zealous Christian, and that all his philosophy was no more than a commentary on the Gospel†. And in this, too, he agrees with Dr Priestley, who boasts that, by proving us to be mere Machines, and that we have no Souls to be saved, he has improved Christianity very much, and cleared it of errors that disgraced it. And against Spinoza have been urged all the objections that are made to the philosophy of Dr Priestley; for it has been said that Spinoza's doctrine puts an end to free will and liberty of action, and, by consequence, to all merit and demerit, making every thing we

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* See this fully explained, Vol. ii. of the Origin of Language, p. 84.

† This account of Spinoza's philosophy is taken from the Appendix to the first volume of the Chevalier Ramsay's Philosophical Principles of Natural and Revealed Religion. In this Appendix, the author has given us the very words of Spinoza. See also what he has said, p. 258. 259. of the same Volume.

do absolutely necessary, and not our action but the action of the Deity.—So that, according to Spinoza and Dr Priestley, God is the immediate Author of all evil in the Universe.

I must observe, for the credit of Antient Philosophy, that this doctrine of an embodied God is not only entirely repugnant to the Christian Theology, as it has been hitherto understood, but also to the notions of all the antient Theists : For, though it appear that Pythagoras and Plato maintained that there was a Divine Being which animated this material world, as our Mind animates our Body, and which is therefore called the *Anima Mundi* ; yet those philosophers distinguished that Being most carefully from the Supreme God, who was the First Person of Plato's Trinity, and who is said by him to be *above all Being and Substance*, (*ὑπερουσιος*), and *entirely separated* (or *ἐξηρημενος*, as they expressed it,) from all Matter. And from this Supreme Mind they supposed that other Minds proceeded in infinite progression and subordination, which, being incorporated with Bodies, were the immediate cause of their motion.

But it may be said, that there is no necessity to suppose that the Supreme Mind cannot move Body, without being mixed or incorporated with it. On this subject, I have said what, I think, is sufficient, in the Second Volume of this Work, *. But, if any doubt should still remain with any of my readers, I will say further, that, whatever moves Body can only do it, either externally or internally, or both ways. As to the Motion of a Body by an external cause, we know, from daily observation, how that is performed, namely, by the application of the surface of some other Body to the surface of the Body that is moved : And we also know, that it is impossible, by the nature of things, that a Substance purely immaterial, which has no solidity nor surface, can move Body in that way. If, therefore, Mind cannot move Body externally, it must do
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* Page 47.

it internally, that is to say, it must act upon every particle of it. Now, as nothing can act but where it is, the consequence is, that the Mind which moves must be intimately present with every particle of the Body moved, that is, must be incorporated with it, or, in other words, must animate it.

But, it may be said that we have no conception how Mind moves Body; all we know is the fact, that it does move Body. To this I answer, That we know, by the most certain of all knowledge, and more certain than any knowledge we have from sense and observation, that Mind, at least in one instance, moves Body by an internal operation upon it, not by any external impulse. The instance I mean is that of the Motion of our own Bodies by our own Minds. And, as it is demonstrated that Mind cannot, in any case, move Body by external Impulse, I think we may fairly conclude, that every Mind, in every case, moves Body internally, as we are sure our Minds move our Bodies.

And thus, I think, I have proved, that, if the Supreme Mind be the immediate Author of all the Motion in the Universe, that Mind, as well as every other Mind which moves Body, must be incorporated with it.

But, further, I say that, not only the Supreme Mind does not move Body in this way, but even not all the inferior Minds; and particularly, I say, that the Intellectual Mind of Man, as coming nearest to the Divinity of any thing we know upon this earth, is not the immediate author of any Motion, not even of the Motions of the Body belonging to it, which are immediately and directly produced by the other Minds in our composition. That it is our Intellect which is the cause of the Vegetable Motion in us, by which we grow and are nourished, no body will maintain. But neither is it

the immediate cause of our Animal Motion, though it guides and directs that Motion : But the immediate cause of it is the Animal Life in us ; a proof of which is, that, in our early infancy, before the Intellect has begun to exert itself, and while it is yet latent in us, the Animal Motions still go on ; and, even after we are grown up, many of those Motions are performed without choice or deliberation, that is, without any act of Intellect ; and, unless we will confound Man with Brute, and maintain that the Brutes have Intellect as well as we, we must admit that all their Motions are performed without Intellect.

What only can create any difficulty upon this subject, is a notion that has prevailed, I believe very generally, among our modern philosophers, that nothing is Mind but what is Intelligent. But, if I have rightly made that distinction of Minds, which I have so much insisted upon, and made the foundation of my whole philosophy of Mind, and have convinced the reader, that, beside the Intellectual Mind, there is an Animal and a Vegetable Mind, as well as that which moves unorganized Body, he will have no difficulty to distinguish them in our composition, and to assign to each of them its proper province ; or, if he should have any, what is to be said in the next chapter will remove it.

I think, therefore, I may conclude, that there is truly in Man the famous Tetractys of the Pythagoreans, comprehending, as I have shown elsewhere, these four Minds, and which, therefore, they said, was the fountain from whence all Nature flowed †, and that Man
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† See what I have said upon the subject of the Tetractys, in a note upon p. 136. of Volume Second. To which it may be added, that, as the Pythagoreans were
certainly

is truly what he was called by the Antients, a *Microcosm*, or *Little World*, containing in little four principles such as are in the Universe ;
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certainly not Materialists, it can never be believed that they would have made Body, and its properties, such as Points, Lines, Surfaces, and Solids, the Principles of Nature. If, indeed, they had been merely Geometers, as some of those are among us who call themselves Philosophers, they might have made the Principles of Geometry the Principles of Nature ; but no body, who knows any thing of their philosophy, can doubt that they were Theologians, that is, Philosophers of the highest order. Even if they had been mere Geometers, one cannot believe that the Greeks were so entirely ignorant of Geometry at that time, after Thales, who learned Geometry in Egypt, had set up his school among them, as to have thought this discovery of these four Elements of Geometry such a wonderful discovery, as to have sworn by the author of it. But, in the sense that I have given to it, I think it was a very great discovery : And I hope I will be forgiven if I claim some merit in making it, though at second hand, to the philosophers of Britain ; for I do not know that the Tetractys has been so explained by any person that has written upon Philosophy in modern times, nor, indeed, by any antient Author that I have read.

I know some will be inclined to think, that the Pythagoreans made Matter to be at least one of the four sources of Nature ; but such divine philosophers, as they were, considered mere Matter as the lowest thing in the Universe, being entirely void of all active Powers, and only the subject upon which such Powers operate : For, though Aristotle dignifies it with the name of a cause, yet it is truly no more than the capacity of receiving all kinds of forms ; and it may be compared to Space, which, as I have shown, is nothing more than the capacity of receiving Bodies. It is so shadowy a Being, that Timaeus the Locrian, in the beginning of his treatise *De Anima Mundi*, says, that it cannot be apprehended by Intellect, but only by what he calls *νόησις λογισμῶν*, or a *bastard kind of reason* : and, indeed, it is impossible to form any idea of it, or to say what it is, till it be informed by that Principle, which I call the *Elemental Mind*, and then it becomes Body. Now, I think it is impossible to suppose that the Pythagoreans would have made such an incomprehensible Being, which cannot be said, in any respect, to be a Cause, except that, without it the material world could not have existed, one of the four grand Principles of Nature. And here it may be observed, that what is highest and what is lowest in the Universe, is equally incomprehensible by the human Mind.

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1st, An Hegemonic, or Governing Principle ; 2do, Animal Life ; 3tio, Vegetable Life ; And, 4to, An Elemental Life, which is the lowest of all, above which the others rise by just degrees, as I have already observed.

These are the four active Principles in Nature, and which alone deserve the name of Principles. For, as to Matter, it is, as I have said in the note below, nothing but the subject upon which those Principles operate, being that which receives all Forms, but has itself none ; and therefore, as Timaeus the Locrian says, in the beginning of his treatise *De Anima Mundi*, it is not to be conceived directly, but only by analogy.

Having said so much concerning Motion in this Chapter, before I conclude it, I must make a confession to the reader, that, in what I have written concerning the continuation of Motion in the last Book of the preceding Volume, I have done much injustice to Sir Isaac Newton, and a great deal more than justice to myself ; for I have said that Sir Isaac took his notion of a *State of Motion*, and of its being continued, when once begun, by a *Vis Infita*, or power essential to Matter, from the French philosopher Des Cartes ; and I have also supposed, that I was the first who dared to argue against what Sir Isaac has laid down as an Axiom, and to assert that Motion, however begun, whether by Mind or by Bodily Impulse, was carried on by Mind, and not by any Power belonging to Matter. But in both these things I was mistaken. For, as to Sir Isaac having borrowed his notions upon this subject from Des Cartes, I find,

The great Author of all Nature is *ὑπερβουσιος* and *αετιος*, according to Plato, and far above our comprehension ; and mere matter, on the other hand, is as far below it. Nor is it unnatural to suppose, that a creature of such finite capacities as we are should not be able to comprehend the extremities of the universe, but only some things that lie in the middle.

find, in the *Journal de Trevoux*, (Art. 38. for the months of September and October 1701), a paper written by a Cartesian, in which he maintains, that Motion, however begun, is carried on by Mind ; and the only difference betwixt him and me is, that he maintains that it is the Supreme Mind, which directly and immediately carries on Motion ; whereas, I say it is an inferior Mind, incorporated with Body, as the Mind of an animal is with its Body. If, therefore, Sir Isaac's Axiom be true, he has all the merit of the discovery, and the greatest discovery, in my opinion, that ever was made in the Philosophy of Nature ; or, if it be an error, I think it is more honourable for Sir Isaac that it should have been his error originally, than that he should have copied it from any other. As to my assuming the merit of having first argued against Sir Isaac's notion upon the subject, I am there also mistaken ; for I find, in the same Journal, (in the same year 1701, for the months of May and June, Article 23.) the very same arguments used against a *State* of Motion, and against its being continued by any Power in Matter, that I have used, with the addition of some other, so strong and forcible, that I shall certainly make use of them, if ever I publish a Second Edition of that part of my Works *.

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* This journal of a Society at Trevoux is entitled, ' *Memoires de l' Histoire des Sciences et des Beaux Arts.*' In the article 23. above quoted, for May and June 1701, Des Cartes's Law of Motion is laid down in these words, taken from *Rohault's* *Physicks* : ' As a Body at rest cannot of itself begin Motion, so a Body in Motion cannot of itself cease to be moved.' This is a proposition I perfectly agree with ; for Body having no active power, but being perfectly inert, can no more stop its own Motion, than begin it or carry it on. If therefore, Sir Isaac's Axiom could be understood in that Sense, I should not have the least objection to it. But I am afraid it cannot be so explained ; for it is evident to me, that Sir Isaac understood that Body, being once put in Motion, went on of itself by a *Vis Infitā*, or power inherent in Body. Now, such a *Vis Infitā* is disclaimed by the Cartesians in the most express terms, (Article 39 for the months of September and October 1701,) where it is said that the Cartesians do not maintain that Motion is continued by any Power in Body. As to the
notion,

These two mistakes, I hope, the reader will pardon, as not proceeding from any intention, either to disparage Sir Isaac Newton, or to magnify myself, but from ignorance of facts, which I have since accidentally discovered, when I was looking for a thing quite different.

notion, that a Body may be continued to be moved by virtue of an impulse that has ceased thousands of years ago, upon which ground some of the Newtonians are at present inclined to defend Sir Isaac's Axiom, it is a notion that, I will venture to say, never entered into the head of any philosopher, antient or modern, not even of Sir Isaac himself, till now it is taken up to defend a cause which, I think, is quite desperate.

C H A P.

C H A P. III.

Of the Elemental Mind in our Composition.—Of the Vegetable Life in us :—difference betwixt it and the Animal Life.—The Animal Life a most material Part of our Composition—next to the Principal :—the Connection betwixt it and the Principal, and the Difference betwixt the two.—The wonderful Connection of all the three inferior Principles with the highest.—The Difference betwixt all the four Principles recapitulated.—The Tetraëctys of the Pythagoreans different from the Trinity of Plato.

HAVING thus shown that Man is a composition, not of several qualities only, but of several substances, it is now proper to inquire into the particular nature of those substances which are united in his wonderful frame.

And *first*, as to the Elemental Mind, it is that of which we must partake, as well as other Bodies, being composed, like them, of the four Elements, Fire, Air, Water, and Earth. It is by this principle that we gravitate, like other Bodies on this earth, towards the centre, and, like them, are moved when we fall from any height. It is the simplest of all the Minds that enter into our composition, and therefore admits of the least variety; nor do I know that there is any difference between the Elements that compose our Bodies, and those which compose other Bodies.

The Vegetable Life in us is that by which we grow and are nourished, and by which all the several operations of digestion, circulation, and secretion are performed. Neither do I know that there is any material difference betwixt the Vegetative Powers in Man, and in any other Animal which has blood that circulates like his. I shall therefore only observe in general, that, as what is lower in Nature is subservient to what is higher, and as the Vegetable Life is undoubtedly inferior to the Animal, so the Vegetation

in Animals is made subservient to the Animal Oeconomy ; and therefore there is in the Animal a circulation and secretion of juices which is not in the Vegetable. It is further to be observed, that the Vegetative Principle, though necessarily connected with the Animal and Intellectual, is perfectly distinct from either. For growth and nutrition go on without being perceived by our Intellect, which has no knowledge, or consciousness of it. Neither is it perceived by our Animal or Sensitive part, not being the object of any sense, nor accompanied with pleasure or pain. And the operations of the two are entirely distinct ; for, by the Animal Principle in us we are moved, and have Sensations, but by the Vegetable we grow and are nourished. And, as the operations are distinct, so are the organs by which they operate. The Animal Principle operates by nerves, the Vegetable by arteries, veins, and other vessels, with different fluids in them : And their operations are so distinct that they may be separated ; for, if the nerves of any member be cut, or be affected by a disease, such as a palsy, there will neither be sensation nor spontaneous Motion, in that member, but there will be circulation of the blood in the veins and arteries, and consequently the member will be nourished. And, in some parts of our Body, there is no occasion for this separation betwixt the Animal and Vegetable part ; for our hair and nails are entirely Vegetable, without sensation or voluntary motion.

The *next* part of our composition, ascending still upwards, is the Animal Life. From this Life, as I have said, we derive Sensation and spontaneous Motion, feel Pleasure and Pain, and are excited to action by appetites and desires. It is a most material part of our composition, undoubtedly next to the principal, and by many made the principal : For there are many thousands, even of civilized men, who live chiefly for the sake of the Animal Life, and have little or no enjoyment but from it. But, though we were disposed to live as we ought to do, if the Animal in us, which, by Nature, is destined

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to be the servant of our Intellect, and is immediately under its command, which our Vegetative Part is not, be not rightly constituted, we must be very deficient, particularly in practical life. It is evident, therefore, that a great part of the excellency of Man must depend upon his Animal Nature; so that it must be considered very accurately in this Philosophy, and will be the subject of the Second Book of this Volume; and I have only mentioned it here, to show its connection with the other parts of our Nature, and also wherein it differs from them.

It is for the same reason that I mention here the highest part of our composition—our Intellect; The distinction betwixt it and the Vegetative Part of us is evident: And, as to our Sensitive Nature, it is clear that the Intellect operates without either Sense or Imagination, by which only the Animal operates; nor is it connected in its operations with any particular parts of the Body, as our Vegetable part is with arteries, veins, and other vessels, and our Animal with nerves, fibres, muscles, and sinews, so that any disorders in these particular parts do not affect it. But it is connected with the whole Animal System; and, therefore, whatever tends to destroy, or very much hurt the principal vital parts, such as the head or heart, must of necessity affect its operations. But we are not therefore to suppose that the Intellect operates by the head or the heart, for they are not even the instruments of its operations; they are only things without which, in its present state, it could not operate. But such things are different, both from the *cause* and the *instrument*. Thus, if a man stands out of my way, by which means I see an object that otherwise I should not see, his removing is neither the cause nor the instrument of my seeing the object, and yet without it I should not have seen the object *. They may be considered also to be the same

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* See what I have said upon this subject, Vol. ii. p. 215. where, upon the authority of Plato, I have established the distinction betwixt *the Cause*, and *that*, without which the cause cannot operate.

with respect to Intellect and its operations, that Space is to Body : For Space is certainly not the *efficient Cause* of Body, nor any quality or property of Body ; neither is it the instrument by which Body is produced or acts, but without it Body could not exist.

There is another connection betwixt our Animal and Intellectual Natures, That the former furnishes materials by the means of the Senses, upon which the latter operates, and forms Ideas. In this respect, the connection betwixt our Animal and Intellectual part seems to be pretty much the same as betwixt our Vegetable and Animal : For, as the Vegetable nourishes the Animal, so the Animal may be said to nourish the Intellectual, by furnishing to it the materials of thought. And thus we see that the lower Mind in us is always subservient to the higher, and the three lowest all to the highest. In this manner, the several substances are most wonderfully connected in our most artificial System, in which, as in every complete System, there is one principal thing, to which every thing else is subservient.

Before I conclude this Book, it may not be improper shortly to recapitulate the differences which distinguish those four Minds, of which we are composed, from one another. The Elemental Mind, as I have said, is nothing but that Mind, which, animating mere Matter, makes it what Aristotle calls a *Physical Body*. The operation of this Mind in us is chiefly seen when we fall from any height. This we do without the concurrence or controul of the Vegetable, Animal, or Intellectual Mind, in us ; which shows that this Principle is distinct from all and each of the other three. From the Vegetable it differs in two respects ; *1mo*, It nourishes and makes to grow ; neither of which is done by the mere Elemental Mind. For Bodies, that have only that Mind, may grow greater by *accretion*, or less, by what may be called *decretion*, that is, by being rubbed and worn ;
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but there is no internal principle in them, as in the Vegetable, by which they grow and are nourished. 2do, It is by the means of certain organs that the Vegetable is thus nourished, and made to grow ; it is therefore an *organized* Body, which the mere Elemental Body is not.

The Animal differs from the Vegetable also in two respects. 1st, He has an Internal Principle, by which he perceives the action of external objects upon his organs of sense. 2do, In consequence of this perception, he has a certain propensity or inclination, called in Greek *ὄρεσις*, by which he is disposed to pursue or to avoid certain things. Now, these two the Vegetable wants ; and, therefore, it has neither Sensation nor Imagination, (which I consider to be the Sensation of things absent, as Sensation, properly so called, is of things present), nor Appetites, nor Desires, nor Pleasure, nor Pain. By these, all resulting from the two things I mentioned as distinctive of the Animal from the Vegetable, the whole animal oeconomy is carried on.

The differences are also twofold betwixt the Animal and Intellectual Life : And these are, first, the formation of Ideas, and then the operation of combining, joining, or disjoining these Ideas ; to which operation we give the name of *Ratiocination*. Now, neither of these operations is performed by the mere Animal.

And here, in our little world, as well as in the great world, we may observe that wonderful *rerum concordia discors*, making that variety and harmony at the same time, which together constitute a System of the most perfect Beauty. All these Substances, of which Man is composed, agree in this, that they are Mind, or an Immaterial Substance, by its nature and essence active ; whereas the Matter upon which it acts is altogether passive. But they have those differences which I have mentioned, and which raise them one above another,

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in gradual ascent, the lower being always subservient to the higher : And this progression ends, as it does in the Great System of the Universe, in the *Hegemonic*, or Governing Principle, which unites the whole, and completes the Microcosm of Man *.

I will conclude this chapter with observing, that the *Tetrad* of the Pythagoreans applies only to our little world and to the great material world, but not to the Divine Nature ; for, in the Divinity, there is only a *Trinity* of Principles ; the first of which is that Grand Principle from which every thing in the Universe proceeds, the original Source and Author of all Being. This is the First Person in the Trinity of Plato, and also in the Christian Trinity. The second is the *Νους* of Plato, and the *Λογος* of the Christian Theology. This is the Principle of Intelligence, begotten of the Father from all Eternity, as it is said in our Christian Creed, being an Eternal Emanation from the First Principle. The third is the *Ψυχη*, in the language of the Platonicians, or in the language of the Christian Theology, the Holy Spirit. This the Platonicians understand to be the Principle of all Life and Motion, by which the whole business of Nature is carried on, and from which are derived, not only the Animal and the Vegetable Life, but also that Life which I call the Elemental †. The Pythagorean Tetrad, therefore, applies only to Natural Philosophy, but not to Theology : And accordingly it is said by the Pythagoreans to be *the Fountain of Nature*. And undoubtedly in Nature there are those four Principles of Intellect, Animal, Vegetable, and Elemental Life, which, as they are Immaterial Principles, and the Ac-
tive

* See what I have further said of the different substances of which we are composed, Vol. II. lib. iii. chap. 1. and of the important consequences which from thence are deduced ; *Ibid.* cap. iii.

† This Platonic Doctrine of the Trinity is most clearly laid down by Plotinus, *Ennead.* 2. lib. 9. cap. 1. and 6. where he shows that there can be neither more nor fewer Divine Principles.

tive Powers of Nature, may be confidered as *Mundane* Gods : And it is in this fenfe that I underftand the faying of Thales, the firft philofopher of Greece, “ That every thing was full of Gods *.” But thofe fublime philofophers conceived that there were, above them, Gods, which they called *supramundane*, which were not embodied, and did not at all mix with Matter ; and it was of them they made the threefold divifion above mentioned.

* To this fenfe of the faying will apply very well the noted ftory of Thales. When fome perfons came to fee a man of whom they had heard fo much, and found him in a kitchen, he bid them enter ; “ For here,” fays he, “ there are alfo Gods.” By which I think he could hardly mean any other Gods than thofe I call *Mundane*.

B O O K

B O O K II.

Of the Animal Part of the Composition of Man.

C H A P T E R I.

The Animal Part of us is best seen when we are only Animals.—Then Man is in his Natural State.—Definition of that State.—The Question, Whether such a State ever did exist?—This State to be seen in our Children.—What is true of Individuals may be supposed to be true of the whole Species.—All the Arts not at once invented.—Cloaths not worn by some Nations at this Day—not by the Oran Outan—the Inhabitants of New Holland,—nor by the Inhabitants of this Country of old.—The Patagonians and Esquimaux wear very few.—The Benefit of Cold:—of Air and Exercise, in hot Countries.—Of Houses—The New Hollanders have none.—No necessity for them in the coldest Climates, proved by Examples of Men yet living.—The Scythians had no Houses.—A particular Account of that People.—Of the Use of Fire.—The Inhabitants of the Ladrone Islands had it not—nor the antient Greeks.—Reflections upon the Use of Fire.—Of the Use of Speech.—Of the Oran Outan mentioned in the First Volume of the Origin of Language.—Additional Circumstances concerning him.—Other Examples of Men in the Natural State.—Men in that State can carry on a joint Business.—This proved by Analogy from other Animals. The Case of Peter the wild

wild Boy.—*All Nations, some time or other, in the natural State.—
The Age of a Nation to be counted from that State.*

IN the preceding Book, I have shown that Man is a compound of several substances. The nature of these I have endeavoured to explain, and to show that, though they differ essentially from one another, they all agree most wonderfully in forming the System of Man. I proceed, in this Book, to consider more particularly one part of the composition—the Animal Nature ; a most material part, as I have observed, being more intimately connected with our Hegemonic, or Governing Principle, than any other part of us is.

And I will begin the inquiry with that State of Man's Animal Nature when he was only an Animal ; for all the parts of his composition did not exist at once, but there was a progress in his formation, as well as in other things in Nature. While in the womb he is no better than a Vegetable, coming probably, like other Vegetables, from eggs. By degrees he becomes an Animal, but is an imperfect Animal even when born. After the Animal Nature is perfected in him, comes the Intellectual part, by slow degrees even among us, but by degrees infinitely slower when he could not be formed, as we are, by example and instruction. But even here there is not an end of his changes : For, after he is become both an Intellectual and Political Animal, and has invented arts and sciences, he is far from continuing the same ; and a man in the first ages of society is exceedingly different from a man in the later and declining state of it. In short, Man appears to me to undergo as many changes as any Animal we know, even as many, and as different from one another, at least with respect to the Mind, as caterpillars and

butterflies ; and, if we believe in a future state, we must suppose that the changes will not cease with this life *.

I begin, then, this Philosophy of Man, by considering him in his natural state, which must be the foundation of any acquired or adventitious state he may afterwards appear in. And here it is proper to explain what I mean by a state of nature ; for it is a term that may be used in two senses, very different. It may denote either his most perfect state, to which his nature tends, and towards which he either is or ought to be always advancing, I mean the perfection of his Intellectual Faculties, by which, and which only, he is truly a Man : And this is the most proper meaning of the natural state of Man ; for the natural state of every thing is that state to which, by nature,

* This progress of Man is very clearly laid down in an excellent work of Philoponus, the Christian commentator upon Aristotle, his commentary upon Aristotle's treatise *De Anima*, lib. 2. in the beginning ; where he makes Man, when first conceived, to be *αψυχον*, or *inanimate* ; then he becomes an *εμψυχον*, but only of the vegetable kind, that is to say, organized, and having growth and nutrition, but without sense or spontaneous motion ; then he becomes a *Zoophyte*, having the sense of Touch, and a certain movement, but without change of place, sticking to the womb like an oyster to its shell or rock ; then, after delivery, he becomes a *ζων*, or *animal*, having motion from place to place, and energizing by all the senses. He is yet, however, but an irrational animal, or *ζων αλογον* ; and it is only in process of time, according to Philoponus, that he becomes *ζων λογικον*. He is not, says our author, even at his birth, an animal of a perfect kind ; for he wants the *Phantasia*, or *Imagination*, and therefore resembles a worm, or such other imperfect animal. That very young children want imagination Philoponus proves in this way : A young child, says he, will suck any thing that resembles a nipple, and he will come to the fire and burn himself, and this not once, but several times. Now this proceeds from his not having those objects pictured in his imagination at first, as they are afterwards, when he knows the fire, and shuns it, and does not mistake a finger, or any thing else, for his mother's nipple. See Philoponus's commentary on that part of Aristotle's third book, *De Anima*, where he treats of the *Phantasia*.

nature, it tends, as the natural state of an Animal is its full growth and strength ; and in this sense the term was used by the Stoics, who very properly applied it to Virtue, which they defined to be “ A Life according to Nature ; ”—Or it is the state from which this progression begins. It is in this sense that I use the term, denoting by it the original state of Man, before societies were formed, or arts invented. This state, I think, may also be called a state of Nature, in contradistinction to the state in which we live at present, which, compared with it, is certainly an artificial state. In such a state, I say, Man had not the use of Intellect, which was then latent or dormant in him, as it is in a child among us, till it was produced by the intercourse of society, and the invention and practice of Arts. Man, therefore, in that state, could be nothing but a mere Animal, without cloaths, houses, the use of fire, or even speech. In such a state, it is certainly most proper to consider his Animal Nature, because we have it there pure, and unmixed with the Intellectual, and the Arts from thence derived ; for the state we are in at present is so mixed of Nature and Art, that it is exceedingly difficult to say what is Nature in us, and what is Art.

If such a state did never actually exist, which many believe to be the case, it would not be improper to use it as an hypothesis, in order to show what Man, considered as a mere Animal, is. But, in the First Volume of the Origin and Progress of Language, I think I have proved, by the testimony both of antient authors and modern travellers, that such a state did once exist, and does now exist *.

There are, I know, among us, who will hardly believe any thing but what they see with their own eyes. These are our Manual Philosophers, who desire to discover every thing in Nature by experiments, and the evidence of their senses. Such men believe as

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little

* Book ii. Cap. 3. 4. 5. 6. and 7.

little of facts that they have not seen, as they do of Mind which they cannot see. I will, however, suggest some things to them, which they may think it worth their while to consider.

In the *first* place, they will not deny, because they see it, that there is a progress in our children, from the mere Animal to the Intellectual Being. Now, why may they not suppose that, in some country of the Earth, or in this very country which we inhabit in some very remote period, this interval was very much longer, as it certainly would be with respect to our children, if they were not instructed both by precept and example, which it may be supposed those antient men wanted. The species Man consists, like every other species, of individuals ; and I think there is nothing more natural than to suppose the same progress in the species, that we observe in the individual, that is, from the mere Animal to the Intellectual Being. But, it is to be observed, that this progress did not go on at the same time among all the inhabitants of the different parts of the earth ; on the contrary, we are sure from history, that some nations were in a high state of civility, while others were no better than mere animals : But what I say is, that all nations must be supposed to have been, at some time or another, in that state, in which we know that some have been, and some are at this day.

Further, they will not maintain, that all the Arts were at once invented, having seen Arts invented in their own time. If so, the only question will be, What Arts, at certain times, in certain countries, were not invented ? They must admit that, in some countries, there was a time when those most useful, and, as we think, necessary Arts of Agriculture and Metallurgy were not known ; but they will not admit that there ever was, in any country, a time when the use of the things I have mentioned, cloaths, houses, fire, and speech, was not known.

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As to cloaths, we are assured, from the best authority, that time was when Man lived without cloaths, as well as houses: Or, if they should not be convinced by this authority, (which is likely to be the case), nor should not believe that the Oran Outan is a Man, or, perhaps, that he exists, yet they can hardly refuse credit to our late travellers in the South Sea, who tell us, that the New Hollanders, in the latitude of 44. where it is colder than in this country, are absolutely naked, tho' they be not covered with hair as the Oran Outan is. Upon their credit, I think, we may give faith to Herodian and Dion Cassius *, when they relate a fact of their own times, that the *Moeatae*, the inhabitants of the southern parts of Scotland, were absolutely naked. The Patagonians, and inhabitants of Terra del Fuego, one of the coldest climates in the world, have no cloathing but loose skins tacked about their shoulders, which we cannot doubt but they might want.

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* These two historians were contemporary with one another, and with Severus the Emperor, who carried his arms to the utmost extremity of the island. Dion Cassius was a man of consular dignity, and, if I am not mistaken, was employed by the Emperor as his Secretary, and, for any thing I know, was with him in Britain. Herodian, too, as he tells us in the beginning of his history, was employed in public offices, and says, that he writes of nothing but what he had seen, or of which he had certain information. They tell so many other particulars of the diet, manner of life, and way of fighting, of those inhabitants of North Britain, as show that the Romans must have been very well acquainted with them; and, if they had been much less so, they must have known with great certainty whether they were clothed or not. The Britons, whom Julius Caesar saw, were the Southern Britons, nearest to the continent of Gaul. And I believe there is no doubt but that they were clothed as the Gauls were, or as the Belgae, of whom some of those Southern Britons were colonies.—I here are, however, men in this country, who, living like bugs themselves, will not believe, notwithstanding these authorities, that it is possible that men ever lived naked in so rude a climate; and they have, as is very common, some miserable system of philosophy to support their own practice, against facts so well attested.

The Hurons, when Gabriel Sagard, (an author of whom I have given an account in the First Volume of the Origin and Progress of Language *), was among them in 1630, were no better clothed. The children, he says, were brought up quite naked, and left to tumble among the snow, and yet were perfectly healthy and strong, and no disease or deformity to be seen among them. He saw, in that part of the world, a vagrant nation, the men of which were absolutely naked, and the women had only a cincture of skins about their middle, p. 77. Now, it is well known, that, in that part of North America, the winters are very much more severe than in this country.

The Esquimaux men, who inhabit a very much colder climate, have no other clothing but one coat of seal skin, yet they have no colds or rheumatisms; and, according to my information, are very much healthier than we are, though their diet be the most wretched that can be imagined, and the most unnatural, one should think, for a land animal, or, indeed, for any animal; for they live for the greater part upon stinking fish and train oil.

The common objection made to man's going naked, is a very frivolous one, viz. that he has not a fur like a bear. But how do we know that he requires as much heat as a bear? There are some animals whose constitutions require a great degree of cold, such as the rein deer, whose native country is the coldest countries of Europe, such as Lapland and Greenland. There are others which require a great deal of heat, such as the elephant, who is an inhabitant of the Torrid Zone; but Man, as he is the greatest compound we know in nature, so he is mixed also in this respect, and participates of the nature of the animals both of the cold and hot regions, being intended by Nature to live in both. He therefore agrees either with cold or heat, but more, I think, with cold than with heat; and, accordingly,

* Page 471.

cordingly, we fee, that, in fome of the cold countries, there are very large bodies of men produced. In this country, where many people think there is fo much cold that we cannot be too much upon our guard againft it, every man who has fenfe and refolution enough to expofe himfelf to it, will feel the benefit of it. The indolent, who would be exempted from the original curfe, and enjoy all the good things of this life without toil and labour, would thrive much better if they could perfuade themfelves to endure the cold of our climate, which would brace them, and give them fome degree of firmnefs without exercife; for I hold exercife to be lefs neceffary in the cold countries than in the hot, where, if a man will live delicately and indolently, his folids will be relaxed by the heat, and his fluids will ftagnate, like water in a pool, and he will die of a putrid fever, which, I am told, is the common difeafe that cuts off fo many of our countrymen in thofe climates. And I know a gentleman who, while he lived indolently in Jamaica, ailed very much, but recovered his health perfectly when he took to exercife, and even exercife which may be reckoned violent; for he would have ridden 40 miles a day, with a burning fun over his head.

As to houfes, the fame New Hollanders (not to mention the Oran Outans,) have nothing that deferves the name of a hut, but live, for the greater part, in the hollows of trees, like the antient inhabitants of Italy, mentioned by Virgil: And hence the origin of the fable, that thofe antient Italians were produced out of trees *. The ftrong
tall

* *Gensque virum truncis et duro robore nata.* Æneid. lib. 8. v. 315.

Upon which the commentary of Servius is in thefe words: ‘Hoc figmentum Homericum eft, et ortum ex antiqua hominum habitatione, qui ante factas domos, aut in cavis arboribus, aut fpeluncis manebant; qui, quum exinde egrederentur, et fuam
edu-

tall men living upon the banks of the Nile, above Egypt, whom Mr Bruce calls Troglodites, dwell, as he says, in caves, instead of houses. I myself know a man who travelled 350 miles upon the side of Hudson's Bay, as cold a climate, I believe, as any in the world, in the middle of winter, and never was under a roof all the while, yet kept his health perfectly well †. And it is a fact well known to the gentlemen of the army, that our soldiers never keep their healths better than when they are lying in the fields in the winter, without even

educerent fobolem, dicti sunt inde procreati. The passage in Homer alluded to by Servius is in the 19th Odysey, verse 163.

Ου γὰρ ἀπο δρυος ἐσσι παλαιφάτων, εὐδ' ἀπο πέτρης,

where the scholiast and Eustathius give the same account of the fable. And this shows us how wonderfully antient history, and even antient fable, are explained by the relations of modern travellers.

† This gentleman's name is Andrew Graham. He was chief factor or governour of Church hill fort, belonging to the Hudson's Bay company, and their principal settlement there, and was altogether twenty-five years in that country, in different forts belonging to that company. He set out upon the journey here mentioned the fourth of February 1773, from Severn river, in latitude 56° 10' north, and travelled to Church-hill river, in latitude 58° 45', (which, by the circuit he was obliged to make, he computes to be a journey of 350 miles), in twenty days. There were three other British men with him, and their equipage was six Indians, and four Newfoundland dogs, who pulled in a sledge their luggage, consisting of beaver and blanket coverings, biscuit, bacon, flour, but no wine, beer, or spirituous liquors, which Mr Graham did not choose to carry with him, because he knew the Indians never would have been quiet till they had drank them all. Their drink was snow water boiled, and cooled in snow; and the Indians killed for them plenty of Game. They all arrived at the end of their journey in perfect health; and Mr Graham says he never had such a stomach in his life, nor ever slept better. He says that they had not then any thermometer in the settlements of the Hudson's Bay company that could measure the degree of cold in that

even tents, much better than they do in the warmest and best winter quarters.

The

that country : But, since he left it, they have got a Fahrenheit's thermometer, graduated 250 degrees below (0) ; and he has got lately, from a friend of his in East-Main Settlement, the following journal of the weather, which, for the curiosity of it, I here give to the reader.

A Journal of the Weather for about an hour and a half of the morning of the 7th January 1781, at East Main Settlement, in latitude $52^{\circ} 10'$ and longitude west from London $80^{\circ} 50'$.

1781. January 7. At 8 A. M. observed the Mercury at

70

H. M. S.

8 30

all in the bulb.

9 2

still in the bulb.

9 3 30

it rose to

250

9 5

240

9 6 30

230

9 11

220

9 12 35

210

9 14 9

200

9 15 45

190

9 17 25

180

9 19 5

170

9 20 43

160

9 22 11

150

H.

The most powerful people that we read of in history, being the greatest conquerors, and who themselves were never conquered,

H.	M.	S.	lived
9	23	31	140
9	24	49	130
9	26	6	120
9	27	22	110
9	28	38	100
9	29	54	90
9	31	12	80
9	32	30	70
9	33	50	60
9	35	50	50
9	36	50	40

N. B. This mark (—) above the numbers on the right hand signifies that the mercury was so many degrees below (0). The barometer at 8. A. M. was 30⁴⁶. The sudden fall of the Mercury from 70⁴⁶ below (0) to 250⁴⁶ is said by the learned in those matters to have been caused by the Mercury having then come to the point of congelation, and become a solid body.

While Mr Graham was in that country, there was a gentleman of the name of Hearne, who was employed by the Company to seek for a communication betwixt Hudson's Bay and the Eastern Ocean, that is, for the north east passage. He set out from the settlement in Churchhill River, and went as far as Copper River, in Latitude 71° 54'. and spent upon the journey, going and returning, three years; and all that time he was never under a roof. In this journey he travelled far in a country very like to the deserts of Tartary, where there was neither wood nor water; and his food was the flesh of buffalos and deer, which he ate raw, as he had no fire

to

lived not in houses. The people I mean were the Scythians, of whom Herodotus says *, that they were the greatest and wisest people of the earth, in this respect, That no enemy, who invaded their country, could escape them ; nor could they be found by any invader, if they did not choose it ; or, if found, they were not to be conquered ; for, says he, having no houses or cities, no cultivated lands, and subsisting intirely upon flocks and herds, in a great track of country cut and divided by many large rivers, and carrying about their wives and children in waggons with them, they could not be overtaken by an enemy, when they had a mind to keep out of his reach ; and being most skilful bowmen, mounted upon excellent horses, which I hold to be the most terrible of all military force, if they had a mind to fight, they could not be overcome. Accordingly, we read of no people who defended their country so well against the most powerful invaders. They were first invaded by the Persians, under their greatest King, and founder of their monarchy, Cyrus, who, after

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to dress it ; and the warm blood served him for water. During all the time, he kept his health perfectly well, except that his legs were swelled by the excessive fatigue of walking with the Indians, who were his conductors and purveyors. But of this he recovered very soon, after his return to Church-hill Fort, of which he is now governor, in place of Mr Graham ; and yet both he and Mr Graham were born and bred in Britain, and had lived as we do before they came to Hudson's Bay ; and, when they were there, kept themselves very warm in their factories with fire, foves, and fur. This shows, not only what extremity of cold the human body can bear, but, from what degrees of heat to what degrees of cold we can pass without hurt, and how soon our Body can suit itself to the temperature of the medium where it is. The water is very much colder than the air ; and we are very sensible of the difference when we first go into it ; but in a very short time that feeling ceases, and we are soon as much at our ease in the one element as in the other ; nor did I ever hear of any man that caught cold in swimming ; which, I believe, is as wholesome an exercise as any we use at land.

* Lib. iv. cap. 5.

he had conquered all the Lower Asia, attacked the Scythians, but was destroyed by them, he and his whole army. In revenge for this, they were again invaded by Darius, the son of Hyftaspès, who escaped from them with the greatest difficulty, and not without being obliged to leave behind him his sick and infirm men ; nor could he have been saved even in that way, except by the Ionians shamefully breaking their faith twice to the Scythians, to whom they promised, that they would demolish the bridge of boats over the Danube, which Darius was to repafs, in order to make his escape. In this war, as it is most accurately described by Herodotus, the Scythians not only showed the greatest bravery and spirit, but the greatest prudence and good conduct.

The Macedonians, who succeeded the Persians in the empire of Asia, did not so much as attempt to conquer them ; but, on the contrary, a tribe of them, called Parthians, invaded Persia, under the successors of Alexander, and possessed themselves of that fine country. These were the people who defied a greater power still than either the Persians or Macedonians, and a more warlike people, I mean the Romans, who suffered from them the greatest losses and disgraces they ever suffered.

And not only did they thus defend themselves against invaders, but, as often as they issued out of their own country, to make conquests, they were successful. Justin says that, in antient times, they thrice conquered Asia ; and, as was just now mentioned, a tribe of them possessed themselves of Persia, under the successors of Alexander.

In later times, there came from that country those prodigious swarms of people, who, under the name of Goths, Vandals, Huns, &c. over-ran the Roman empire ; and, settling in the provinces of
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it, are the progenitors of the greatest part of the present inhabitants of Europe. And, in later times still, first under Gingeez-chan in the 13th century, and then under Tamerlane in the 15th, they over-ran all Asia, broke into Europe, and came as far as the gates of Vienna: And the last mentioned of these conquerors established a great empire in India, which still subsists. And, latest of all, as late as this century or the end of the last, being attacked by the Emperor of China, at the head of an army of 300,000 men, they worsted him in every encounter, armed, as they were of old, with bows, and mounted on horseback, and obliged him to retire, with the loss of a considerable part of his army *. These men, as I have said, lived not in houses, (though antient Scythia was the coldest country known to the antients †, and the same country, now known by the name of Tartary, is at present the coldest part of the Continents of Europe and Asia), and had not even tents, as the present inhabitants of those countries, the Tartars, have: For, if they had had them, so accurate an historian as Herodotus, who appears himself to have been in their country ‡, and to have been exceedingly well informed about all their customs and manners, would have told us. He does not say that they were not cloathed; and therefore I presume they were, but slightly and loosely, as the Patagonians, and the inhabitants of Terra del Fuego are, which is still a severer climate than Scythia. And, in a severer climate than either, being one degree south of the Straits of Magellan, Sir Francis Drake found men altogether

* See Bell's Travels, p. 178. See also p. 196. where he tells us that the Tartars lament the condition of a man who is confined to a house, and to one place of abode; and it is a common malediction among them, to wish that a man may be confined to one place, and labour like a Russian.

† See a dreadful account of their winter given by Herodotus, Lib. 4. cap. 28.

‡ Lib. 4. cap. 81.

gether naked *. So true it is, what I before observed, that the Human Body can bear any extremity of cold.

The next thing I mentioned was the use of Fire. This the Oran Outan has not. This the inhabitants of the Ladrone or Marianne Islands had not when Magellan first discovered them; and, when they first saw it kindled by the Spaniards, they fled from it, as from a monster that would devour them as it devoured the wood †. The memory of the introduction of Fire among the inhabitants of Greece is preserved in the fable of Prometheus, who contrived, some way or other, to get it from the Sun. The antient Egyptians had the same opinion of Fire as those inhabitants of the Ladrone Islands, and Herodotus relates it almost in the same words ‡. This is another instance of the wonderful agreement betwixt antient history and the relations of modern travellers; a kind of reading, which many, calling themselves philosophers and scholars, affect to despise.

If the reader will allow me to quote myself as a traveller, I will inform him, that the wild girl whom I saw in France, and whom I have mentioned so often in the First Volume of the Origin and Progress of Language, told me, that, when she was first housed, she could hardly bear the air of a close room; but, as to Fire, it was her abhorrence and her terror.

At this day, the Esquimaux, upon the side of Hudson's Bay, though inhabiting one of the coldest countries of the world, never kindle a Fire, except to light their lamps of fish-oil, which give them light in their long dreary winter nights. And, as the New Hollanders have no houses, they can make very little use
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* See Harris's Voyages, Vol. i. p. 16.

† History of the Works of the Learned, Vol. 2. p. 270. May 1700.

‡ Αἰγυπτίοισι νομιέσται πυρὸς θεῖον εἶναι ἐμψυχόν, πάντα δὲ αὐτοῦ κατεσθίειν τὰ περ αὐτὸν λαβόν.
Herod. lib. 3. cap 16

of Fire ; and, accordingly, the chief use they make of it, is to draw the birds to it in the night-time, that they may have an opportunity of killing them. The consequence of these people not having the use of Fire is, that they can have none of the Arts of Vulcan and Minerva, and therefore must want those Arts which we reckon necessary to life.

Before I leave this subject, I must observe, that it is perhaps the most extraordinary thing in the history of our Species, that an Element, which is the abhorrence and terror of every Animal in the natural state *, and of Man among the rest, should have become not only familiar to us, but even a necessary of life, without which many people believe that it is impossible to live. See what I have further said upon this subject in the Origin and Progress of Language †. I will only further add, that the use we make of Fire must have a very great effect upon us, one way or another ; for, either it must make us larger, stronger, and healthier, or it must have a contrary effect. As to size, the inhabitants of the Ladrone Islands are reported by some travellers to be of a gigantic size ; but Captain Cowley, in his voyage to the South Sea in 1684, says that the stature of the tallest of them did not exceed $7\frac{1}{2}$ feet, but that they were broad and lusty in proportion to their height, and exceedingly strong ‡. And there is another traveller who says that they live a hundred years, without disease §.

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* Homer says, that a Lion, who is not to be kept off otherwise, runs away from a torch. And travellers in desert countries make Fires in the night, to secure themselves against wild beasts. In this way Mr Byron says that he kept off a very great beast that came to attack him and his company in the night. *Narrative*, page 56.

† Vol. i. Book ii. chap. 7. Second Edition.

‡ See that Voyage in the Collection published by Mr Callender, under the name of *Terra Australis incognita*, Vol. ii. p. 552.

§ See the work above quoted, *The History of the Works of the Learned*, Vol. ii. p. 270 May 1700.—See also Father Gaubien's Account of the Marianne Islands, quoted in Buffon's Natural History, Vol. iii. p. 406.

The last thing I mentioned is the Art of Speech. That it is truly an Art, and not a mere natural operation, I believe now every Man is convinced, as much as Dains Barrington, who has proved that singing is not natural to Birds, and says, that, to believe the contrary, would be as absurd as to believe that Man spoke naturally *. And, indeed, it appears to me, that a language of articulation is so difficult of practice, even after it is invented, that, unless we begin young, and practise constantly, it is hardly to be learned. How infinitely more difficult, then, must the invention have been?—so difficult, that, though I think I have shewn† the possibility of its having been invented, yet, as I believe that, in the early ages of the world, men had a much greater communication with Superior Powers than they have now, I am not at all averse to the opinion of those who think it may have been revealed to certain nations by some of those Powers, or, at least, that they must have been assisted by them in the discovery of it. But, be that as it will, there are men still extant to whom it has not been revealed, and these are sufficient to show that it is not natural to Man. And there is, first, the Oran Outan, whose humanity, I think, I have established by proof, that ought to satisfy every one who gives credit to human testimony. I will, however, add some circumstances more concerning him, which I have learned since publishing the First Volume of the Origin and Progress of Language. And, first, I have been told that the Oran Outan, who is to be seen in Sir Ashton Lever's collection, had learned, before he died, to articulate some words. This was one of the small kind; but, if I can believe the Newspapers, there was one of the great kind, seven feet high, that was some time ago shipped aboard a French East India ship: I hope he has had a safe voyage

* This ingenious work of Mr Barrington's was published in the Philosophical Transactions some time ago.

† Origin and Progress of Language, Vol. i. Book iii. Cap. 4. p. 471. Second Edition.

age to Europe, and that his education will be taken care of ; for, being of the large kind, and no more than seven feet high, I suppose he is but young, and therefore may, with proper pains, be taught to speak, which will convince the most credulous of his humanity, even those who believe that the faculty of speech is essential to Man. But, even though he be young, as I suppose, it will require a great deal of pains to teach him : For, if Peter the Wild Boy, (of him I will say a great deal more before I conclude this chapter), who certainly is of parents that had the use of speech, has learned, in so many years, to articulate so few words, what must be the case of a perfect savage, who is come of savage parents, through a descent of I don't know how many thousand years ? Such an Animal must necessarily be as indocile as any of the human species can be.

Another circumstance that I have learned concerning him since publishing the *Origin and Progress of Language*, is related in the Second Volume of *Antient Metaphysics**, and is to this effect ; That one of them who served as a sailor on board a Jamaica ship trading to the Slave Coast, messed with the sailors, did the duty of a common sailor, and also served the Captain as a cabin boy. Having one day broken a China bowl, the Captain beat him ; which the Animal took so much to heart, that he abstained from food and died. This was told me by a Jamaica gentleman, who had it from the Captain of the ship, and agrees so exactly with the account that the Bristol merchant gives in a letter of his that I have published †, of an Oran Outan, who had such a sense of honour, that he could not bear to be exposed as a show, that I cannot doubt of the truth of it.

I will only add further, upon the subject of the Oran Outan, that, if an Animal, who walks upright,—is of the human form, both outside and inside,—uses a weapon for defence and attack,—associates with his kind,—makes huts to defend himself from the weather, better, I believe, than those of the New Hollanders,—is tame and

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gentle,

* Page 145.

† Vol. i. of the *Origin and Progress of Language*, p. 281. Second Edition.

gentle,—and, instead of killing men and women, as he could easily do, takes them prisoners, and makes servants of them;—who has what, I think, essential to the human kind, a sense of honour;—who, when he is brought into the company of civilized men, behaves with dignity and composure, altogether unlike a monkey,—from whom he differs likewise in this material respect, that he is capable of great attachments to particular persons*, which the monkey is altogether incapable of, and also in this respect, that a monkey never can be so tamed, that we may depend upon his not doing mischief when left alone, by breaking glasses or China within his reach; whereas the Oran Outan is altogether harmless;—who has so much of the docility of a man, that he learns, not only to do the common offices of a menial servant, as the Oran Outan did whom I saw stuffed in the French King's cabinet of curiosities, but also to play upon the flute; which shows that he must have an idea of melody and concord of sounds, which no brute-animal has †;—and, lastly, if joined to all these qualities, he has the organs of pronunciation, and, consequently, the capacity of speech, though not the actual use of it;—If, I say, such an Animal is not a Man, I should desire to know in what the essence of a man consists, and what it is that distinguishes a Natural Man from the Man of Art? for I hold it to be impossible to convince any philosopher, or any man of common sense, who has bestowed any time to consider the mechanism of speech, that such various actions and configurations of the organs of speech, as are necessary for articulation, can be natural to man. Whoever thinks this possible, should go and see, as I have done, Mr Braidwood of Edinburgh, or the Abbe de l' Epee in Paris,

* See Vol. I. of the Origin and Progress of Language, p. 344. Second Edition; where a story is told of an Oran Outan, who shed tears at parting with a man for whom he had an affection.

† See all those facts collected together, Ibid. Lib. ii. cap. 4. and 5. See also the Second Volume of this work, p. 125.

Paris, teach the dumb to speak ; and, when he has observed all the different actions of the organs, which those professors are obliged to mark distinctly to their pupils with a great deal of pains and labour, so far from thinking articulation natural to Man, he will rather wonder how, by any teaching or imitation, he should attain to the ready performance of such various and complicated operations. For even the pronunciation of many of the single letters, particularly of the consonants, is very difficult. And, when it is further considered that, in order to speak, it is necessary to join such a number of these artificial sounds together in an infinite variety of combinations, and to utter them readily and distinctly, it must appear that speech is not only an Art, but a most difficult Art, not to be learned without both teaching and imitation and very assiduous practice. For I hold it to be impossible to learn to speak, as we learn dancing or music, by practising an hour or two in the day : But we must practice constantly, and upon every occasion ; and, unless we begin in our early youth, while the organs are yet soft and pliable, it is not to be learned without the greatest difficulty. I therefore do not at all wonder, that the dumb Savages have not learned to speak ; for even the dumb and deaf among us cannot learn it, unless they give the greatest application, which cannot be expected from a Savage, who is not so docile by nature, as a man born of civilized parents and brought up among civilized men, and who, besides, cannot be so much convinced of the usefulness of the Art.

What I published in the First Volume of the Origin and Progress of Language concerning the Oran Outan, excited very much, at first, the curiosity of the people of England, particularly of the members of the Royal Society. And I was informed by a letter from the late Sir John Pringle, President of that Society, that they intended to send out a man on purpose, whom he called Woodvil,

to Africa, to inquire about the Oran Outan *: But it seems the Society at present are otherwise employed.

Before I have done with the Oran Outan, it is proper to observe that we must distinguish betwixt some Animals in the East Indies, particularly in the island of Borneo, which bear the name of Oran Outan, and the Oran Outan of Angola, of whom only I have hitherto spoken. There is a letter to Sir John Pringle, published in the Philosophical Transactions for the year 1779, from a Professor of Anatomy in the University of Groningen, who says he dissected some Oran Outans, in whom he did not find the organs of speech such as they are in Man : But he tells us that those Oran Outans were all from the Island of Borneo ; whereas the Oran Outan, so accurately dissected by Tyffon, who says that he had exactly the same organs of voice that a Man has †, was from Angola ; and, in other respects, he was different from the Oran Outans of Borneo, as this Professor remarks. It is not, therefore, without reason, that he concludes that those African *Pitbecas*, as he calls them, are a different Animal from the *Pitbecas* of Borneo, which he holds to be the same as the *Pitbecas* of the Antients ‡.

But, leaving the Oran Outan, of whom I have said a great deal too much for the philosopher, though too little for the men who believe nothing except upon the evidence of their own senses, I will proceed to mention other facts, which, I think, (setting him aside,) establish the real existence of a state of Nature.

And,

* Sir John's letter is dated the 8th February 1774, and he says the gentleman was to sail the next spring for Africa ; but I never heard more of him.

† See Tyffon's Account of this Oran Outan, p. 51.

‡ Page 167. of The Philosophical Transactions for 1779.

And, first, there is the fact, which I have related in the First Volume of the Origin and Progress of Language, upon information which I had from the mouth of a person of undoubted veracity, concerning some men that were sold as Negroe slaves in Africa, about the mouth of the river Gaboon, who had not attained the faculty of speech.

There is another fact concerning wild men without the use of speech, which comes to me from the Reverend Mr Maddison, Professor of Mathematics in the University of Williamsburgh in Virginia, who was in London about six years ago, and, for any thing I know, may be there still; and he avers it as a fact well known in Virginia. He says that, a few years before I got this information from him, there were found in the lower parts of Virginia, in a place called the Dismal Swamp, two young men, the one of the age of twenty, and the other of seventeen or eighteen, as nearly as could be judged. They, at first, fled from the sight of men, and were altogether wild: But they were caught, and had been housed, and were become domestic, at the time he left Virginia. They had begun also to learn the English language, and had acquired some articulation, instead of a sound like the gagging of geese, by which, with the help of signs, they communicated with one another when they first were caught. Mr Maddison could give no account by what means they came to inhabit this swamp, except a common report, that their parents had fled to this place from the persecution of their creditors, and there had perished, leaving their children very young, who made a shift to live upon wild roots and fish. They had large bellies and heads, and could run and climb extraordinarily well.

From this narrative we may learn what probably was the beginning of language in all nations. Those two Savages communicated
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together by a found, which my author likens to the gagging of geese. Of this, in process of time, a language may have been made, (not in one generation, I am persuaded, but in successive generations), such as *Monf. de la Condamine* describes the language of a people on the banks of the river Amazons, or such as that of a people of the same country of South America, called Chiquits. The speech of this last mentioned people resembles inarticulate cries so much, that you hardly can distinguish words in it; and it is so unintelligible, that the Indians of other nations cannot learn it unless they have been taught it very young. Our oldest Missionaries, says our Author, do not understand it: And they affirm that the people themselves sometimes do not understand one another *: Such a half formed language appears to have been used by the people in Africa mentioned by *Herodotus*, who, he says, made a noise like batts †. Even the Hottentots, who are farther advanced in the arts of life than those barbarous nations I have mentioned, use a language very inarticulate, resembling the gobbling of Turkeys more than speaking ‡. And *Mr Adair*, a late traveller in North America, says that even the nations of Louisiana, who are much more civilized than the Indians further north, speak in the same manner §.

There was a solitary Savage discovered in the Pyrenean Mountains, as late as the year 1774, by *Monfieur Le Roy*, a French engineer, who was employed there to cut wood for the French Navy. He was frequently seen by the Shepherds, though they could not lay hold of him, being swifter of foot than even their dogs. They related many things that he did, but never heard him utter an articulate sound; from whence, I think, it may be concluded, with great certainty, that he was mute as well as the solitary Savages that
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* *Memoire Geograph. Physic. et Historiq. tom. 5. edit. Yverden, 1767. p. 221.*

† *Lib. iv. cap. 183.*

‡ See *Buffon, Vol. iii p. 471. 472.*

§ Page 80.

have been found in different parts of Europe, and particularly two that, in 1719, were found in theſe ſame Pyrenean mountains, as I have related in the Origin and Progreſs of Language *. M. Le Roy concludes his account of him, by ſaying, what I am perſuaded is the truth, that he had been left on thoſe mountains in his infancy, and had ſubſiſted on herbs †.

I have likewiſe been informed of a dumb ſavage, that was found about four or five years ago, in a ſmall iſland in the Eaſtern Ocean, called Diego Garcia. He, too, was very unwilling to be taken, and was caught with ſome difficulty. It appeared from ſeveral circumſtances, particularly from the uſe he had of Fire, and his way of making it by the friction of pieces of wood upon one another, that he had come from a country of arts and civility, and, it is likely, had once learned to ſpeak. But, when he was taken, and brought to the iſland of Bourbon in a French veſſel, he had entirely loſt the uſe of ſpeech. This information I had from a French gentleman, who, two or three years ago, was taken priſoner aboard a French ſhip and brought to Scotland, where I ſaw him and converſed with him. He ſaid that, when he left the Iſland of Bourbon, the man had not then learned to ſpeak, though he had been four months there ‡.

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* Volume Firſt; Second Edition, page 186.

† The account of this wild Man was firſt publiſhed at Paris by M. le Roy, under the title of ‘*Memoire ſur les Travaux, &c. dans le Pyrenees,*’ and was tranſlated and publiſhed in England, in the Annual Regiſter, for the year 1778.

‡ I will here give the ſtory at length, as I ſet it down after converſing with the French gentleman.

There is a French gentleman, at preſent a priſoner in Scotland, who was taken by a Glaſgow privateer, on board a French ſhip homeward bound from the Eaſt Indies. He relates that, in the year 1778, he ſaw in the Iſland of Bourbon a human creature

There is another fact, which I have likewise learned since the publication of the *Origin and Progress of Language*, from a friend of mine, whose veracity I can entirely depend upon. He says that, when he was in Batavia, where he resided several years, he saw two human creatures that had been brought from New Holland, both males. Neither of them had any use of speech; and the one of them being elderly, would not, or could not, learn that or any thing else, and was altogether wild and untractable: But the other, being young, was at last tamed, and taught to speak; and, when he got the use of language, he said that the people of the country from whence he came, had not the faculty of speech, nevertheless they lived together in society, and communicated their wants to each other by signs and wild cries.

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ture who had not the use of speech. This Animal was found by the crew of a French ship, in a small desert island in the Indian Sea, called by the Spaniards *Diego Garcia*. He was the only human creature upon the island. His subsistence was upon turtle; of the shells of which he had made himself a hut. He ran away from the Frenchmen at first; and, being much swifter of foot than any of them, they could not catch him: But they lay in wait for him at his hut, and there laid hold of him. He was not fierce, nor very wild, but soon grew familiar with them, and followed them willingly aboard their ship. The gentleman saw him in the island of Bourbon, after he had been four months there. He had not then learned the use of speech, but he made signs, and appeared to be a sensible man. He was judged to be about twenty years of age, and was not an East Indian, a Malayse, nor an European; but, from his complexion, the gentleman conjectured him to be a native of the Maldiva Islands, which are not far from the Island where he was found. He had the use of Fire, which he made by turning round a stick in a hole bored in another stick, which is commonly practised in barbarous nations. But I think it is impossible this could have been invented by him. And therefore I think it is clear evidence that he must have come from a country where the arts of life must have made some progress, and at an age too when he had learned some of them. And, accordingly he signified by signs, that he was about the height of a boy of ten or twelve years of age when he came to the island. If so, he must have had the use of speech, but which he had altogether lost by disuse for ten or twelve years; and it will be with no small difficulty that he will recover the use of it.

Those, who have taken the trouble to read the Third Chapter of the Second Volume of the *Origin and Progress of Language*, will not, I am persuaded, think incredible the facts that I have here related ; for they will find there such a concurrence of antient with modern authorities, as, I think, must force belief upon the most incredulous.

One of the facts mentioned in that Chapter is concerning the *Fish-eaters* upon the coast of the *Arabian Gulph*, and of what the Antients called the *Red Sea* and we the *Indian Ocean*, to which that Gulph is joined by the *Straits of Babel-Mandel*, as they are now called. Of these *Fish-eaters* there were two races, one inhabiting near to those Straits upon the African side, the other inhabiting upon the Red Sea, beyond those Straits, and likewise on the African side, both catching the fish in the same way, that is, by dikes or mounds of stones, which prevent the fish from getting out of those hollows and gullies, into which they are carried by the full tide, at the same time letting the water pass, so that the fish are left dry when the sea ebbs. In this same way some of the inhabitants of New Holland catch the fish at this day: And it is so described by Dampier, that one should imagine he had taken his account from the antient authors who speak of these *Fish-eaters* in Africa * ; but whom, I am persuaded, he never saw, or perhaps never heard of. From what we hear of the first race, it is not, as I have said, certain whether they had learned to articulate or not, though I think it is highly probable they had not ; but, with respect to the latter race, it is expressly said that they had no use of language, but communicated their wants by gestures only. This fact I have related in the *Origin and Progress of Language*, on the authority of Diodorus singly, not knowing, at that time, that there was any other authority to be found ; but I have been lately informed by a very learned gentleman in London, who honours me with his correspondence, that the author from whom Diodo-

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* *Origin and Progress of Language*, Vol. i. p. 239.

rus takes this story is still extant. This author's name is Agatharchides, who is one of the only two historians whom Diodorus mentions as writers that might be trusted to in the account they have given of those barbarous nations. But Diodorus, not satisfied with the information he got from them, conversed, as he says, with the Egyptian priests upon the subject, and with some ambassadors from Ethiopia, whom he saw when he was in Egypt; and, comparing their accounts with the accounts of the two historians, he has related what they all, or most of them, agreed in*.

Thus far the truth of the fact rests upon the authority of Diodorus only. But, as Agatharchides is still extant, I have consulted him; and I find that Diodorus has, for the greater part of his narrative, most faithfully transcribed Agatharchides, often using the very same words, but with the addition of several circumstances, which he must be supposed to have learned from the other historian he mentions, whom he calls Artemidorus, or from the information of the Egyptian priests and Ethiopian ambassadors. These circumstances agree perfectly with the narrative of Agatharchides, serving only to make it more full and distinct†. The question then is, What credit is to be given to this Agatharchides? Diodorus, as I have said, commends his fidelity and accuracy. But, did he live at a time when he could be well informed of the facts he relates? As to which, we are sure that he lived either in the days of the third Ptolemy, King of Egypt, or betwixt his reign and the time when Diodorus wrote, which was in the days of Julius Caesar; for, as Diodorus tells us‡, Agatharchides got his information from one Symmias, who was sent by this Ptolemy to inform himself concerning those barbarous nations, with all the attendance, and what else was necessary for such an expedition, and who,

says

* Diodorus, lib. iii. p. 104. *Edit. Stephani.*

† Agatharchides, p. 50. published by Harry Stephen in 1557, together with pieces of several other authors.

‡ Lib. iii. p. 108.

says Agatharchides, informed himself most accurately of every thing. The fact, therefore, related concerning this strange people, so attested, must be believed, unless we are resolved to reject all antient history, and to believe nothing but what is to be seen in our own times. The circumstance of their not speaking, will, I know, appear extraordinary, if not quite incredible, to those who believe Language to be natural to Man. But, for my part, I should have thought it most extraordinary, and, indeed, absolutely incredible, if men, who had the practice of no art but that rude unartificial way of fishing, should have invented an art of so much difficulty as articulation. If, therefore, they had had the use of speech, it appears to me evident that they must have learned it from some other nation. But with any other nation it does not appear that they had the least intercourse. Their stupidity and insensibility, with their entire ignorance of the *pulchrum* and *honestum* in actions and sentiments, is not, I think, at all extraordinary, but, on the contrary, the necessary consequence of the state of human nature in which they lived. But there is one circumstance concerning them, which appears, at first sight, very extraordinary. It is this, that they lived entirely without drinking, and had not so much as an idea of that kind of nourishment: But this Agatharchides, and after him Diodorus *, have explained, by telling us that they ate their fish almost quite raw. Now, we all know that fish is a watry diet, and therefore very light; and I have no doubt, that, if eaten raw, with the blood and other fluids in them not exhaled by fire, they will supply the place of drink. Even flesh, which is a much more solid food, if it be eaten raw and new killed, will make drink unnecessary, as is evident from the instance above mentioned, of Mr Hearne †, who lived for months together upon raw flesh, without the use of water.—And, if the reader desire further proof, of how little liquid is sufficient for a man, he may have it without going out of Britain; for there is a miller in Essex, who lives entirely upon pudding made of flour of

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* Agath. p. 49. Diodorus, p. 108.

† Page 35.

sea-biscuit, (the driest, I believe, of all vegetable food), and of a pint and a half of skimmed milk ; and this serves him for 24 hours, in place of water, bear, or wine, which he never tastes *.—All this may serve to make us believe what is reported by travellers in the South Sea, of certain people there, who will be at Sea for many days without fresh water ; for these people must eat the fish, they catch, raw.

And here, again, we may observe the wonderful agreement of the relations of modern travellers with antient authors ; so great, that I think, we must either believe both, or suppose that both have concurred, at such a distance of time, in telling the same lie. If we believe what Dampier, one of the most accurate and most credible of our travellers, has told us of the manner of fishing of the people of New Holland, we must also believe what Agatharchides and Diodorus have told us of the manner of fishing of the Fish-eaters in Africa.—If we believe what we are told by the concurring testimony of so many travellers, of the Oran Outan not having the use of Speech, and what Dr Greenhill says, of men whom he himself saw in Africa, who could not articulate *, and what my friend from Batavia saw likewise himself, while he was in that country †, we must also believe what these antient authors have affirmed of the Fish-eaters, in Africa, not having learned to articulate, and also what Herodotus has told us of Men in the same country of Africa, who are hunted like wild beasts, (as Dr Greenhill says the mute Savages about the mouth of the River Gaboon are at this day), and made an inarticulate noise, like bats.—And, lastly, Whoever believes that Mr Hearne could live without water or drink of any kind, upon eating raw flesh, and that certain nations in the South Sea can live at sea for many days, without the use of water, must believe also that

* See an account of this case in the Annual Register for 1772. I was also informed of it by a learned physician in London, who saw him, and made particular inquiry about his manner of living.

† Origin and Progress of Language, Vol. i. p. 253.

‡ Page 48. of this Volume.

that the Fish-eaters of Agatharchides and Diodorus may have subsisted upon raw fish without drink. In short, however extraordinary those facts may appear, if we disbelieve them, we must reject all human testimony, both antient and modern, and resolve to believe that men have always been the same in all ages and nations that we see them now in Europe. I will only further add, that the relations of modern travellers so explain and illustrate facts of the history of Man, that his natural state cannot be perfectly known, without studying diligently the relations of both.

There may be some of my readers, who, though perhaps they may be convinced, from the many examples I have given, that single solitary Savages *, having been, by some accident, thrown out of human society, may want the use of speech, yet cannot be persuaded, that men can live together in society, and carry on any joint work, without a language of articulation. But, if they believe the account I have given of the Oran Outans, who certainly live in Society, and what I have related from antient authors, concerning the Fish-eaters, they must be convinced that a language of signs, gestures, and inarticulate cries, is sufficient for a Society of few wants, such as the first societies of men undoubtedly were. But further, I would have them consider whether they think that Beavers have more sagacity than men. Of them I have said a great deal in the Twelfth Chapter of the Second Book of the First Volume of the Origin and Progress of Language, and, I think, have clearly shown that they are really political Animals, and carry on a great deal of business in the best manner possible, without communication by speech. And I will here add, what I have since learned from a French author, Monsieur le Page du Pratz, who has written a history of Louisiana, which, I think, is a work of great curiosity. He relates a remarkable story concerning the Beavers, of which he himself was an eye-witness, in a journey that he made in Louisiana, from the country of the Natches to
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* See Vol. i. of the Origin and Progress of Language, page 186.

that of the Chikefaws, both adjoining to the River Mississippi. In this journey he came to a Beaver Pond, with many huts of Beavers upon it, and having pitched his tent near the Pond, but out of sight of the Beavers, he, with the assistance of an old Indian that he had with him, made a breach in the dam, and cut a gutter or trench about a foot wide, by which he let off the water of the dam ; and then he laid himself in ambush, to observe what the beavers would do upon the occasion : ‘ As soon,’ says he, ‘ as the water began to run, I ‘ observed a Beaver come out of his hut, and get upon the top of ‘ the dam, where, after taking a survey of the gutter, he gave four ‘ blows of his tail with all his force. He had scarce struck the ‘ fourth, but all the beavers threw themselves pell mell into the water, and came upon the dam. When they were all come thither, ‘ one of them muttered or mumbled to the rest, (who all stood very ‘ attentive), I know not what orders, but which they undoubtedly ‘ understood well, because they instantly departed, and went out on ‘ the banks of the pond, one party one way, another another. Those ‘ next us were between us and the dam, and we at the proper distance not to be seen, and to observe them. Some of them ‘ made mortar, others carried it on their tails, which served for ‘ sledges. I observed they put themselves two and two, side by side, ‘ the one with his head to the other’s tail, and thus mutually loaded ‘ each other. One trailed the mortar, which was pretty stiff, quite ‘ to the dam, where others remained to take it, put it into the gutter, and rammed it with blows of their tails. The noise, which the ‘ water made before by its fall, soon ceased, and the breach was closed ‘ in a short time ; upon which one of the Beavers struck two great ‘ blows with his tail, and instantly they all took to the water, and ‘ without any noise disappeared *.’ After this, as he appears to have been a man of great curiosity, he made a pretty large and deep breach in the dam, in order to observe its construction. This made the
water

* History of Louisiana, p. 143.

water of the dam run off very fast, which, says he, gave the Beavers much uneasiness ; and he observed one of them come pretty near to him, at different times, in order to examine what passed. After this, he says, he and his companions went and hid themselves near to the pond, and then they observed, that one Beaver ventured to go upon the breach, after having several times approached it, and returned again like a spy. ‘I lay in ambush, in the bottom,’ continues he, ‘at the end of the dam. I saw him return. He surveyed the breach, then struck four blows, which saved his life ; for I then aimed at him : But these four blows, so well struck, made me judge it was the signal of call for all the rest, just as the night before. This made me also think he might be the overseer of the work ; and I did not chuse to deprive the republic of Beavers of a member who appeared so necessary to it. I therefore waited till others should appear. A little after, one came and passed close by me, in order to go to work. I made no scruple to lay him at his full length, on the persuasion he might only be a common labourer *.’ The Author of this Narrative is a French gentleman, who had served in the army. In the year 1719, about the time of the Mississippi scheme, he was sent to Louisiana, in quality of superintendant of the French settlement there, and remained in the country 16 years. He appears to have been a man of sense and accurate observation. There is nothing in any part of his work that is marvellous, except to those who think every thing strange and incredible, that is different from what is to be seen at home or in other nations of Europe. I cannot, therefore, see the least reason to believe that he would have told a lie, (for so the story must be if it is not true), merely to make the reader stare : Nor could I easily be persuaded that, for a much better reason, a French man of quality would tell a lie. The reader will observe in this narrative, that, besides the signal which this overseer

* Ibid. page 144.

overseer made by the strokes of his tail, he gave his orders to the Beavers, after they were assembled, by muttering or mumbling, as our Author expresses it. This, I suppose, to have been a method of communication among those Animals, something like that gagging by which the two wild men in the Dismal Swamp of Virginia communicated, or like that noise which Herodotus, in the passage I quoted above, says the Troglodytes of Ethiopia made, which he compares to the cry of bats*.

Besides the beaver, there are two other Animals, which I have mentioned in the First Volume of the Origin and Progress of Language†; the one called *Baubacis*, the other the *Sea Cat*. Each of these kinds of Animals live in community, carry on a joint business and a very exact government, without the use of speech, or the capacity of acquiring it. These instances I have given, rather than the common ones of the Bees and Ants; first, because such animals as the Beaver, Baubacis, and Sea Cat, come much nearer to our Species than Ants or Bees; and, secondly, because we can observe their operations better, being Animals of so much greater size.

And thus, I think, it is proved, not only from particular facts, but from the analogy of Nature, and that resemblance which we must suppose to be between us, in our natural state, and other Animals herding together, that a joint work may be carried on, without the use of that method of communication we call Language. I have insisted the more upon this, that I think it was absolutely necessary for the invention of Language, that men should have first herded together, and formed a society for carrying on some business of

* Lib. iv. Cap. 183.

† Lib. ii. cap. 12. p. 422. Second Edition.

of defence or ſuſtenance. And I am perſuaded that ſome other arts muſt have been invented, before the invention of language.

There may, however, ſtill be ſome, and theſe, too, pretending to be learned in Natural Hiſtory, who not having ſtudied that of their own Species, at the ſame time aſhamed to be ignorant of what it concerns them more to know than any other part of Natural Hiſtory, will ſtill doubt, or pretend to doubt, that ever men, either ſingle or in ſociety, exiſted without the uſe of ſpeech. Such unbelievers may have an opportunity, without going out of their own country, and without truſting to the reports of hiſtorians or travellers, antient or modern, foreign or domeſtic, of convincing themſelves, by their own eyes and ears, that there may be a human creature that has lived to be an old man without the uſe of ſpeech. For this purpoſe, they have no more to do but to go to a farmer's houſe in Hertfordſhire, within a mile of Berkhamſtead, where they will ſee PETER, *the Wild Boy*, (as he is ſtill called, tho' he be now an old man), and may inform themſelves concerning the particulars of his hiſtory, by inquiring at perſons in the neighbourhood, ſome of whom remember to have ſeen him ſoon after his arrival in England. As I think him one of the greateſt curioſities in the world, greater ſtill than the wild girl I ſaw in France, I will here relate all that I have been able to learn of his hiſtory, which I conſider as a brief chronicle or abſtract of the hiſtory of the progreſs of human nature, from the mere animal to the firſt ſtage of civilized life.

Before I relate what I ſaw myſelf of him, and learned from others with whom I converſed upon the place, I will ſet down what is to be found in print concerning him, at leaſt all that I have been able to find.

No. I.

The first account I can find of him is in the Edinburgh Caledonian Mercury of Tuesday December 21. 1725, taken from the St James's Evening Post, December 14. 1725. It is in these words :

‘ *Hanover.* The intendant of the House of Correction at Zell has brought a boy hither,’ (to Hanover), ‘ supposed to be about fifteen years of age, who was found some time ago in a wood near Hamelin, about twenty-eight miles off this city, walking upon his hands and feet, climbing up trees like a squirrel, and feeding upon grass, and moss of trees. ’Tis not yet known by what strange fate he came into the wood, because he cannot speak. He was presented to the King while at dinner, when his Majesty made him taste of all the dishes that were served up at table ; and, in order to bring him by degrees to human diet, his Majesty has ordered that he have such provisions as he likes best, and that he may have such instruction as may best fit him for human society.’

No. II.

From the Flying Post, December 30. 1725, reprinted in the Caledonian Mercury, January 7. 1726.

‘ *Hanover, December 28.* The circumstances about the Savage Boy, found in the Woods of Hamelin, are confirmed almost in every tittle, with this addition, that the boy having since made his escape into the same wood, he was there caught on a tree, where he thought to hide himself.’

No. III.

From Wye's Letter, March 24. 1726, printed in the Caledonian Mercury of March 29. 1726.

‘ The wild man, taken in the woods of Germany last year, is brought over, being a great curiosity.’

No. IV.

From Wye's Letter, London, April 5. printed in the Caledonian Mercury April 11. 1726.

‘ The wild boy taken in the woods of Hanover, being brought over, was carried Friday night last into the presence of his Majesty, and many of the nobility. He is supposed to be about thirteen years old, and scarce seems to have any idea of things ; however, ’tis observed he took most notice of his Majesty, and of the Princess giving him her glove, which he tried to put on his own hand, and seemed much pleased, as also with a gold watch, which was held to strike at his ear. They put on him blue clothes ; but he seems uneasy to be obliged to wear any, and cannot be brought to lie on a bed, but sits and sleeps in a corner of the room ; whence it is conjectured he used to sleep on a tree for security against wild beasts, they having been obliged to saw down one when he was taken. We hear he is to be committed to the care of Dr Arbuthnot, in order to try if he can be brought to the use of speech, and made a sociable creature.’

No. V.

From the Edinburgh Evening Courant, April 12. 1726.

‘ London, March 31. The wild youth mentioned in our last is dressed in green lined with red, and has scarlet stockings. He walks upright, and has begun to sit for his picture.’

No. VI.

From the Edinburgh Evening Courant, July 5. 1726.

‘ London, June 28. The wild youth lately brought from Hanover, being pretty much forwarded in speech, is, we hear, to be baptised this evening at Dr Arbuthnot’s house near Burlington Gardens.’

No. VII.

From an occasional Paper, called, ‘ The Country Gentleman,’ No. 10. dated April 11. 1726. reprinted in the Edinburgh Evening Courant of August 8. 1726.

‘ I was at court about ten days ago, where I saw a youth who is one of the greatest curiosities that has appeared in the world since the time of Adam. This wild creature is, they conjecture, about twelve or thirteen years of age ; and the accounts they give us of his behaviour sufficiently prove that he was entirely unacquainted with his own species. He was found naked in the woods of Hamelin in Germany, running upon all four, and sometimes climbing up the trees, like a squirrel ; but which way he came there,

‘ or

‘ or how he supported himself in that uncomfortable solitude, is at present what takes up the conversation of the learned.’

No. VIII.

From Wye's Letter, printed in the Edinburgh Evening Courant of November 14. 1726.

‘ We are told that Dr Arbuthnot has not yet been able, notwithstanding all the pains he has taken, to bring the wild youth, either to the use of speech, or pronounciation of any words, which some impute to his want of understanding, because he still retains the natural wildness in all his actions and behaviour.’

No. IX.

The last thing I find printed concerning Peter is a very witty and ludicrous thing of Dean Swift, entitled, ‘ *It cannot rain, but it pours* * ;’ where he gives an account of *the wonderful Wild Man*, as he calls him, full of satire and ridicule, in which he excels every writer, but containing several facts concerning him, that are certainly true ; and therefore I presume that the other facts that he mentions, though they are no where else to be found, are likewise true, whatever we may think of the use and application he makes of them. He says, what is undoubtedly true, ‘ That he was taken in the woods of Germany ;—that he was brought to court in 1726 ;—that he seemed then to be about twelve or thirteen years of age ;—and that he was put under the care of an ingenious physician,’ meaning Dr Arbuthnot. He further says, ‘ That it was evident, by several tokens, that he had a father and mother like one of us.’ This I believe also to be true ; because I was told by a person yet living, that, when he was catched, he had a collar about his neck, with something written upon it. So far, therefore, I think we may depend

* Vol. iii. of the 4to edition of his works, p. 132.

depend upon the Dean's facts. But he further tells us, what is no where else to be found, ' that, in the circle at court, he endeavoured to kiss the young Lady Walpole ;—that he put on his hat before the King, and laid hold on the Lord Chamberlain's staff ; —that he expressed his sensations by certain sounds, which he had framed to himself ;—and, particularly, that he neighed something like a horse ; in which way he commonly expressed his joy ;—that he understood the language of beasts and birds, by which they express their appetites and feelings ;—that his senses were more acute than those of the tame man ;—and, lastly, that he could sing some tunes.'

These facts the Dean must have known ; for he was in London at the time ; his own arrival there, under the name of *the copper-farthing Dean from Ireland*, being announced to the public among the other wonders contained in this work. Now, this being the case, we cannot suppose that such a man as the Dean would have told a lie, even if it had been a wonderful one, and such as could have made his readers stare ; whereas the things he relates of this wild boy are very natural, and such as one should have expected from him.

This is all I have been able to discover, printed in Britain, concerning this extraordinary phaenomenon ; more extraordinary, I think, than the new planet, or than if we were to discover 30,000 more fixed stars, besides those lately discovered. I have endeavoured to get an account of him from Hanover, where I think some memory, or tradition, at least, of him, must be preserved, though there should be nothing recorded of him ; but, hitherto I have not been successful. It only remains, therefore, that I should inform the reader of what I saw myself, and could learn from others concerning him, having gone to that part of the country where he resides

fides at present, on purpose to inquire about him, and conversed with several persons there, who had known him for many years.

It was in the beginning of June 1782 that I saw him, in a farmhouse called *Broadway*, within about a mile, as I have said, of *Berkhamstead*, kept there upon a pension, which the King pays. He is but of low stature, not exceeding five feet three inches ; and, though he must be now about 70 years of age, has a fresh, healthy look. He wears his beard ; his face is not at all ugly or disagreeable ; and he has a look that may be called sensible and sagacious for a savage. About twenty years ago, he was in use to elope, and to be amissing for several days ; and once, as I was told, he wandered as far as Norfolk : But, of late, he has been quite tame, and either keeps the house, or saunters about the farm. He has been, the thirteen last years, where he lives at present ; and, before that, he was twelve years with another farmer, whom I saw and conversed with. This farmer told me that he had been put to school somewhere in Hertfordshire, but had only learned to articulate his own name, *Peter*, and the name of *King George* ; both which I heard him pronounce very distinctly. But the woman of the house where he now is, (for the man happened not to be at home), told me that he understood every thing that was said to him concerning the common affairs of life ; and I saw that he readily understood several things that she said to him while I was present. Among other things, she desired him to sing *Nancy Dawson*, which accordingly he did, and another tune that she named. He never was mischievous, but had always that gentleness of nature, which I hold to be characteristical of our nature, at least till we become carnivorous, and hunters or warriors. He feeds at present as the farmer and his wife do ; but, as I was told by an old woman, (one Mrs Callop, living at a village in the neighbourhood, called Hempstead, who remembered to have seen him when he first came to Hertfordshire, which she computed to be 55 years before the time

time I saw her), that he then fed very much upon leaves, and particularly upon the leaves of cabbage, which she saw him eat raw. He was then, as she thought, about 15 years of age, walked upright, but could climb trees like a squirrel. At present, he not only eats flesh, but also has got the taste of beer, and even of spirits, of which he inclines to drink more than he can get. And the old farmer above mentioned, with whom he lived twelve years before he came to this farmer, told me that he had acquired that taste before he came to him, that is, about 25 years ago. He is also become very fond of Fire, but has not yet acquired a liking for money ; for, though he takes it, he does not keep it, but gives it to his landlord or landlady, which I suppose is a lesson that they have taught him. He retains so much of his natural instinct, that he has a fore-feeling of bad weather, growling and howling, and showing great disorder, before it comes on.

These are the particulars concerning him, which I observed myself, or could learn by information from others in the neighbourhood ; and, from all these facts put together, the following observations arise :

1mo, Whatever doubts there may be concerning the humanity of the Oran Outan, it was never made a question but that Peter was a man.

2do, That he was, as the Dean says, of a father and mother like one of us. This, as I have said, was the case of the Savages found in the dismal swamp in Virginia,—of the one found in the island of Diego Garcia, and of him that was discovered by Monsieur le Roy in the Pyrenees, and, in general, of all the Savages that have been found in Europe within these last three hundred years ; for I do not believe that, for these two thousand years past, there has been a race of such Savages in Europe.

3^{to}, I think there can be no reason to doubt of what was written from Hanover, and published in the Newspapers, that he was found going upon *all four*, as well as other solitary Savages that have been found in Europe *. It is true, that others have been found erect ; which was the case of the two found in the Dismal Swamp of Virginia, likewise of the Man in the Pyrenees, and of him in the Island of Diego Garcia. But these, I suppose, were not exposed till they had learned to walk upright ; whereas Peter appears to have been abandoned by his parents before he had learned that lesson, but walked as we know children do at first.

4^{to}, I think it is evident that he is not an idiot, not only from his appearance, as I have described it, and from his actions, but from all the accounts that we have of him, both those printed, and those attested by persons yet living : For, as to the printed accounts, there is not the least insinuation of that kind in any of them, except in one, viz. Wyc's Letter, No. 8. wherein it is said that some imputed his not learning to speak to want of understanding ; which, I should think, showed rather want of understanding in those who thought so, when it is considered that, at this time, he had not been a year out of the woods, and, I suppose, but a month or two under the care of Dr Arbuthnot, who had taken the charge of his education. The Dean, indeed, tells us, that some suspected he was a *pretender*, and *no genuine wild man*; but not a word of his being an idiot. And, as to the persons living, not one, with whom I have conversed, appeared to have the least suspicion of that kind ; though it was very natural that men, who were not philosophers, and knew nothing of the progress of Man from the mere Animal to the Intellectual Creature, nor of the improvement of our understanding by social intercourse and the arts of life, but believed that Man, when he is come to a certain age, has from Nature all the faculties which we see him exert, and particularly

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particularly

Origin and Progress of Language, Vol. i. p. 186. second edition.

ticularly the faculty of Speech, should think him an idiot, and wanting even the capacity of acquiring understanding. I knew an officer of dragoons, a man of very good sense, who was quartered where Peter then lived, for some months, and saw him almost every day ; and he assured me, that he was not an idiot, but showed common understanding, which was all that could be expected from one no better educated than he.

Lastly, Those, who have considered what I have said of the difficulty of articulation *, will not be surprised that a Man, who had lived a savage for the first fourteen or fifteen years of his life, should have made so little progress in that art. I cannot, however, have the least doubt that, if he had been under the care of Mr Braidwood of Edinburgh, he would have learned to speak, though with much more difficulty than a man who had been brought up tame among people who had the use of speech, and who, consequently, must know the advantage of it. And I can have as little doubt that Mr Braidwood could have taught the Oran Outan in Sir Ashton Lever's Collection, who had learned to articulate a few words, to speak plainly enough.

I have heard of no objection of any weight to the credibility of the facts related in the Newspapers concerning Peter, except its being said that he fed in the woods upon the leaves and bark of trees : And it is pretended by some, that the anatomy of the human body demonstrates it to be impossible that a man can subsist upon such an aliment. This I have never heard any man say who was learned in anatomy ; nor do I believe that an animal, who is more various in his food than any other known, cannot subsist upon Vegetable Substances of any kind. But, *2dly*, The Newspaper does not say that it was only upon these he subsisted ; and it is very probable that he lived, like the Oran Outan, or the Monkey of Bengal, called *Golok*, of whom

* Pages 40.—43.

whom we have an account in the Transactions for the year 1769 *. He also is an inhabitant of the woods, and subsists, as the account says, upon fruit, leaves, bark of trees, and milk. This animal is of the human form, and walks upright, but differs from the Oran Outan described by Tiffon in this respect, that he has not buttocks, nor brawns of the leg, such as Tiffon's Oran Outan had ; and, 2dly, That he is not of the stature of that Oran Outan: For the Golok is only of the common height of a man, whereas the Oran Outan, dissected by Tyffon, was very young, being under two years, which was the age of the Oran Outan that Buffon saw and has described ; for he was of less stature than Buffon's Oran Outan, being not much above two feet, and his teeth were not altogether formed †. It is therefore highly probable, that, if he had lived in his own climate, in the natural way, he would have grown, not to the size of five feet only, computing according to the ordinary rate of our growth, as Buffon supposes, but to the stature of the great Oran Outan of Angola, from which country he came ; for an animal, so much bigger, stronger, and longer lived than we, must necessarily take much longer time to grow. And I cannot doubt that the great Oran Outan, in his native woods, grows till he is thirty, or, perhaps, forty years of age. However, as the Golok is described as gentle and modest, I incline to be of opinion that he is likewise a man, and not a monkey.

If these facts concerning Peter be true, and the inferences I have drawn from them just, such a living example of the state of Nature will, I hope, satisfy even the men of experiment, who will believe nothing but what falls under the evidence of their Senses.

Before I conclude what I have to say of Peter and the Oran Outan, I must observe, that, as the humanity of Peter never was disputed, I think we can as little doubt of that of the Oran Outan, who resembles

* Page 71.

† See Buffon's Natural History, Vol. xiv. p. 52.

resembles him so much : And, indeed, according to the account which Buffon gives * of the one whom he saw, and appears to have examined very particularly, it is impossible to doubt that he was a human creature, unless we are determined to believe that there is no progress in our species, and that men have from Nature all those faculties, which they acquire by imitation and instruction, in the society of civilized men ; for it is evident that Buffon's Oran Outan wanted nothing but those arts, and particularly the art of speech, which, as I have shown†, is acquired with so much difficulty.

And thus, I think, I have proved, in every way that a fact of natural history can be proved, that there have been men, and are still, who live without Clothes or Houses, without the use of Fire or Speech, or of the Arts depending upon these ; and that, therefore, my State of Nature is not an imaginary State, which I am afraid the Stoical State of Nature ‡ is, but a real State, upon which we may safely found our philosophy of *Man*. Nor is this any discovery of mine ; for, in the First Volume of the Origin and Progress of Language §, I have alledged such authorities for it, from antient authors, both sacred and profane, as should create, at least, some prejudice in my favours.

In this state I think every nation in the world must have been at some time or another, unless we suppose a revelation, to some particular nation, of a language, and, at the same time, of other arts of life, immediately on its existence. But, as we have no warrant to suppose that, unless it be with respect to one nation, I hold that all other nations have, some time or other, been in the state I call *natural*, tho' that cannot be proved by any record, except as to very few of them. I therefore

* Vol. xiv. p 53.

† Pages 40.—43. of this Vol.

‡ Page 26.

§ Book ii. Chap. 7.

therefore call the age of a nation its distance from that State; for what the birth is to an individual, the formation into civil society is to a nation. And, as it is evident from history, that all nations were not at the same time in this natural state, but some highly civilized, while others were perfectly wild, the ages of nations, according to this way of reckoning, are very different: The nations of Europe, for example, are all very young, and may be said to be of yesterday, compared with Egypt and some Asiatic nations, particularly India.

The reader, if he has patience to accompany me to the end of this Work, will not be surpris'd that I have been at so much pains to prove the existence of this Natural State; for he will see that my whole Philosophy of Man hangs upon it: And he will be convinced, that it is not from any design to disgrace and vilify our Species, as some may suspect, that I have insisted so much upon it, but because I could not reconcile the miserable state in which Men are now to be found in almost all the nations of the known world, the more miserable the more the nations are civilized, with the administration of a wise and a good God, otherwise than by showing that Man is in this life in a state of progression, from the mere Animal to the Intellectual Creature, of greater or less perfection, and a progression not to end in this life; from which progression I propose to show that Moral Evil is as necessary as Physical, if the Moral World be a System, as well as the Natural, and consequently both governed by general laws: And, if it be true, as I believe it is, that this scene of Man is to have an end, as well as the present System of Nature, and that Man is to appear again in some other form, as we are told the Heavens and the Earth will do, it is according to the order of Nature that this change of his state should not happen at once, but should come on by degrees, and, consequently, that the Species
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should decline, degenerate, and become old, as we see the Individual does, before its extinction.

Having thus established the existence of a State of Nature, I am now to enquire, in the next Chapter, what sort of Animal Man in that

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C H A P.

C H A P. II.

The Body of Man suited to his Mind ;—superior, upon the whole, to that of any other Animal.—Of the acquired Bodily Faculties of Man.—Swimming one of these ;—also Walking erect.—This proved by Facts.—These acquired Faculties much improved by the Sense of Honour.—Comparison betwixt the Oran Outan and Achilles in running.—Exercise, a great Advantage that a civilized People have over Barbarians.—The necessity of Exercises in Hot Countries.—The Natural Life of Man, in the open Air, like that of Horses and Cattle.—Animals living in that Way, not affected by Pestilential Diseases.—Facts concerning Horses and Cattle loving to be in the Air.—Even a sudden Transition from the Housed Life to the Fields, not dangerous.—The contrary Transition very dangerous.—Facts to this purpose.—The same Changes with respect to Diet will have the same Effect.—Progress of Men out of the Air into Trunks of Trees and Caverns.—Of Houses ;—very large in some Barbarous Nations.—Of Clothes, which exclude the Air altogether.—Of the great Hurt by Clothes.—Several Remedies for this ;—Wearing few Clothes,—Anointing,—Bathing.—Of the Use of Fire.—The Mischiefs of it.—Only good use of it made in Jamaica.—The Diet of Man very various.—Particular Account of the Esquimaux Diet, and Manner of Life.—In some Countries Men never lived in a perfect natural State.—Drink in the natural State, Water.—Men, by Nature, have an Aversion to all Strong Liquors.—Examples of that.

AS the Mind, in every Animal, is the principal and governing part, so the Body of every Animal is suited to the dispositions of his Mind. Thus, the Mind of the Lyon or Tiger being fierce
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and ravenous, and disposed to prey upon other Animals, their Bodies are strong, and well armed with teeth and claws: On the contrary, the Mind of the Hare or Deer being timorous, and disposing the animal to seek its safety in flight, the Body is made to answer that purpose. To argue otherwise, and to say that, because the Body is so and so made, therefore the Mind is of such or such a disposition, is to argue most preposterously, and contrary to the nature of things.

The Human Mind is undoubtedly the noblest Mind inhabiting any Body upon Earth. Man was certainly intended to act the greatest part in this our theatre: He was destined to inhabit and cultivate the earth, and to subdue all its other inhabitants. Nor was his dominion to be confined to the Earth; he was to reign over the sea likewise, and to conquer the animals there of the most enormous size. Over the air, too, he has endeavoured to extend his empire, if there be any foundation in fact, for the fable of Icarus, to which the attempt of Bishop Wilkins may, I think, give some credit. Horace, therefore, has very justly characterised the human race;

Audax omnia perpeti

Gens humana——

Nil mortalibus arduum est.

Expertus vacuum Daedalus aera

*Pennis non homini datis *.*

To serve such a Mind as this, a Body was required, excellent, too, of its kind—such as had both strength and agility—could suffer as well as act—and was able to endure any extremity of weather, and all variety of climates; not like those Animals that are made only for certain climates, as the rein-deer for such a climate as that of Lapland, and the elephant for the tropical climates. And such, I say, is the Body of Man in its natural state; much superior, upon the whole

* Lib. i. Ode 3.

whole, to that of all other Animals, though, in some particular bodily faculties they may excel him.

As Nature does nothing in vain, she has not bestowed upon Man some Faculties of Body that she has given to other Animals, but has left him to acquire them by his peculiar sagacity, and the superiority which his inventive and imitative genius gives him over those other Animals. The faculty of swimming, for example, she has given, I believe, to every other land-animal of any size : But, though Men, in some countries, have taught themselves so to swim, as to be amphibious as much as the Otter, yet I do not think that Man, by Nature, swims, as we see dogs and other animals do ; and my reason for thinking so is, that the most barbarous nations, and who are the nearest to the natural state, are at great pains to accustom their children to the water, and to teach them to swim. The wild girl I saw in France told me, that, when she was taken up by the French ship, she was at sea in a round canoe like a tub, with several other children, who were placed there that the sea might break over them ; and the mothers, she said, trained their children to swim, by carrying them out a little way into the sea, then leaving them to themselves, and making them follow their mothers to land, with some little help they gave them. By such an education, this wild girl was so taught to swim, that she could not only dive, and keep under water like an otter, but could catch fish with her hands, as an otter does with his teeth. And the first appearance she made in France, was coming out of a river near to the village of Songé in Champagne, (whither I went to inquire about her), with a fish in her hand : And the inhabitants of the Marianne or Ladrone Islands catch fish in the same way *.

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* Churchill's Collection of Voyages, Vol. iv. p. 459. Vol. v. p. 702. There was a man in Sicily, that died not many years ago, who was in use to swim betwixt Sicily and Italy, and to catch fish with his hands in the bottom of the Sea. This information I had from two gentlemen lately come from Italy, one of whom had likewise been in Sicily, and told me the story was well known in both countries.

But what shall we say of the erect posture? Is it, too, from acquired habit? And, after what I have related of Peter the Wild Boy, and other solitary savages that have been found in Europe, the reader will not be surpris'd when I tell him that my opinion is, that walking upright is likewise an acquired habit. When we are in the most natural state of any, that is, when we are born, we certainly go upon all four: And, if we were to allow our children to take their natural exercise in that way, which, I am perswaded, would do them a great deal of good, they certainly would be some years old before they walked upright. This is the case of the children of the Caribbs, who run about in their huts upon all four, like little dogs; and, after they are grown up, and become great lads, they continue the same practice, and run as fast upon all four as we do upon two legs; and, when they first begin to erect themselves, they do it with great difficulty, and fall very often *. Now, I think it is certain, that, without imitation and instruction, those children would have continued all their lives to go upon all four.

Nor is this theory only, but it is, as I have shewn, proved by facts; for all the solitary savages, that were found in Europe before this century, walked upon all four; and one of them was taught, with much difficulty, to walk upright †. To these accounts I will add a story which I had from a Swedish gentleman, whom I saw in Edinburgh, a scholar of Linnaeus, which he heard him tell in his class:

There was a human creature caught in the woods of Saxony, in the time of Frederick Augustus King of Poland. He was running wild upon all four with the bears, and, like them, fed chiefly upon wild honey. The greatest difficulty, he said,
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* Pere Tertre's *Histoire Generale des Antilles*, Vol. ii. Page 305.

† *Origin and Progress of Language*, Vol. i. Page 186. second edition.

in taming him, was to make him walk upright, for which they hung weights to his shoulders, to counteract that propensity which he had to fall prone. He added this circumstance, that, after he was civilized, had learned to speak, and had lived several years with men, he still retained his bearish love for honey, and inclination to rob the bees, insomuch that he would never pass a bee-hive, without feeling that inclination very strongly.

When to all these facts we join the story of the Hanoverian boy, so well vouched; which happened in our own time, there is, altogether, a chain of evidence, which forces the assent, however unwilling we may be to degrade our species to a quadruped. I therefore hold it to be a vulgar error, that walking upright is an essential quality of human nature, and am persuaded that Aristotle is in the right, who has said that, by nature, Man is only more a biped than any other Animal *. And with Aristotle agrees Tyffon, who, by the description he has given us of the Oran Outan he dissected, has plainly shown that he could walk more conveniently upon *two*, than upon *all four*.

But, however natural it may be to Man to walk on all four, it must, I think, be allowed, that walking upright is among the first habits that men acquire. The Oran Outan of Angola, who is so little advanced in the arts of life, walks upright; and it was most natural that an animal so sagacious as he should learn to profit by the advantage which so great a length of body gave him over other animals. It is an advantage, of which we see even horses avail themselves, upon certain occasions. The wild men also, whom I have

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mentioned

* *Μάλιστα γὰρ κατὰ φύσιν ἐπιδίπνει.* *De Animalium incessu, cap. v.* The meaning of which certainly is, That he is by Nature better formed for walking on *two*, and has a greater aptitude for acquiring that habit.

mentioned in the preceding chapter *, profited so much by being some time with civilized men, as to learn to walk in that manner.

There is one thing to be observed of those acquired faculties of Body, that they are wonderfully improved by a sense of honour, which is peculiar to Man, and, as it is well known, will make him voluntarily endure the greatest pains, and even death itself. Now, every body knows that exercise is absolutely necessary for bringing those acquired bodily faculties to any degree of perfection, and even violent painful exercise. But no Brute will endure pain voluntarily, nor any Man who is yet but a mere Animal, and has not formed that idea of *the fair* and *the handsome*, which is the foundation of the sense of honour; whereas the civilized man will, from that sense of honour, submit to the greatest pain and labour, in order to excel in any exercise which is honourable.

*Qui cupit optatam cursu contingere metam,
Multa tulit fecitque puer, sudavit et alfit †.*

And this induces me to believe, that such a man as Achilles might have beat in running even an Oran Outan, or the Savage of the Pyrenees, whom nobody could lay hold of, tho' that be the exercise in which Savages excel the most, and tho' I am persuaded that the great Oran Outan of Angola is naturally stronger and swifter of foot than Achilles was, or than even the heroes of the preceding age, such as Hercules, and such as Theseus, Perithous, and others mentioned by Nestor ‡. But Achilles had formed himself to running by great exercise, *sudavit et alfit*; whereas the Oran Outan never runs but for some necessary of life. And, if this be true of running, it will hold much more of such exercises as wrestling and boxing, of which the Oran Outan has

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* Page 65. and Vol. i. of the Origin and Progress of Language there quoted.

† Horat. De Arte Poetica, V. 412.

‡ Homer. Iliad. i. Vers. 263.

no use at all ; and, as to the exercise of arms, it is impossible that there could be any comparison betwixt them.

It was, I imagine, by the superiority which the practice of exercises gave the antient Greek heroes, that Theseus, and the other heroes of the age before the Trojan war, overcame those barbarous mountaineers mentioned by Nestor* ; and it was by the same superiority, joined, no doubt, with their superiority in arms and discipline, that, in later times, the Romans conquered the Cimbri and Teutons, the Gauls and Germans, men much superior to them in size and strength of body and in fierceness. Plutarch says †, that, in the great battle with the Cimbri, which was fought a few days after the summer solstice, the Romans had been so exercised by Marius, that not a man was that day sweated, or so much as blown, while the Barbarians were overcome by the heat, more than by the swords of the Romans.

And here we may observe, in passing, the necessity of exercise, and even violent exercise, in hot countries, without which it was impossible the Romans could have withstood the Barbarians, even with all their advantages of arms and discipline, and have fought, as Julius Caesar did with the Helvetii, hand to hand, from morning to night ‡, if their bodies had not been rendered firm and strong by constant hard exercise ; the want of which made those great bodies of Gauls and Germans, in hot weather, soft and *fluid*, to use an expression of Livy, especially when they came into such a warm country as Italy. For I am persuaded, in their own cold country, they would have stood much better against the Romans ; and, if that great battle with the Cimbri had been fought in the northern parts of Germany, from whence they came, or even in Italy in the middle of winter, instead of the middle of summer, I should have thought that the event of it would have been very doubtful. It was not therefore

without.

* Iliad. i. Verse 263. et sequen.

† In Vita Marii.

‡ Caesar, De Bell. Gall. Lib. i.

without reason that the Greeks and Romans made the characteristic of a well exercised man, and a body in good order, the being able to endure the sun and dust. Without this, the antient Greeks would not only have been unfit for war, but they could not have enjoyed their national pleasures of the Games, and particularly the Olympic, which were celebrated in the middle of summer, and where the croud was so prodigiously great, and consequently the heat and dust, that I do not believe there is a modern man in Europe that could have borne to be a spectator there, much less to have been a performer.

I come now to speak of what is to be the principal subject of this chapter, The nature of the animal, Man, in his original state, and his manner of life in that state; which, being according to Nature and not opinion, we are sure, is the best possible, at least with respect to the Body and Animal Life, of which only we are now speaking. And, first, we are to inquire whether Man be by nature destined to live above ground and in the open air, like horses and oxen, or under ground and in holes, like foxes and rabbits, (not to mention smaller Animals), so as not to come abroad, except to feed, or for some other necessary purpose. And I say that Men, in this respect, are of the nature of horses and cattle.

As to them, it is well known that they thrive best in the fields, and that the winter running is better for them than the summer, particularly for horses. In the house, horses are liable to many diseases; but it hardly has been known that a horse at grass has contracted any ailment; but, on the contrary, they are commonly cured, by running out, of diseases they have contracted in the house. And, in general, I do not know that any of these pestilential diseases, which make such dreadful havock among men and other housed animals, have ever affected the wild. Virgil, indeed, says *, that the plague among the cattle of the Alps destroyed also the wild

* Georgic. Lib. iii. Verse 478.

wild animals. But I am hardly disposed to take the word of a single poet for such a fact, when we know that the greatest plagues of which there is any record, such as the plague in Athens, of which Thucydides has given us so accurate an account, the plague in the time of Justinian the Emperor, of which we have likewise an accurate account from a cotemporary historian, Procopius, who says it destroyed one-half of the human species, and the famous plague in Naples, in 1656 *, did not affect the wild animals.

As to horses and cattle, those of them, that have been bred without doors, cannot be persuaded, without much difficulty, to come under a roof; and such horses as have been brought up in the house, and kept there for years, if they are let run out, though their stable be always kept open, they will only feed there, and, even in the stormiest nights, will go out to sleep in the fields. This is a fact I can attest; and there is another, of which I was an eye-witness, that will appear still more extraordinary. A parcel of horses that I had running out, in a most tempestuous day of wind and rain, came to the shed, but did not go in, only put in their heads, and stood with their bodies exposed to the storm; and this not one of them only did, but all, to the number of six or seven. And the reason of what appears so strange is, that wind and rain affect the ears of a horse very much, and that way disturb him *: But that the air, even tho' agitated by wind, and accompanied by rain, does good to his body, we must believe, unless we suppose that instinct, or, in other words, God and Nature, can err. Now, even those, who account for every thing by Matter and Mechanism, will hardly pretend that there is such an essential difference betwixt the structure and anatomy of a man and a horse, as to make that air, which is so salutary to a horse, pernicious to a man.

But,

* See Gionani's History of Naples, p. 778. Vol. ii.

But, besides this argument from analogy, the facts I have already mentioned * clearly prove, that the human body can not only bear the extremity of cold, but is the better for it. For we cannot doubt that our travellers upon the side of Hudson's Bay, as they were not hurt by the cold, were the better for it; because every man's experience must convince him, that the more cold he endures, if he can bear it, the greater his appetite will be, and his vigour, both of body and mind: Yet these travellers had been housed all their lives, and had lived in the factory, in close houses heated with great fires, and had drunk strong liquors, like other men; and, though all sudden changes are apt to hurt the Animal Body, they were not in the least affected by a change as violent and sudden as can well be imagined.

A most remarkable instance of this kind is well known to the officers who served in the last war under Prince Ferdinand. He took the troops out of their winter-quarters in the month of January, and carried them into the field, without tents, even in the climate of Germany. The men were but a very little affected by the sudden change, even at first; but, in a very short time, they were all in perfect health, and good spirits: And I know an officer, who had been sickly for some years before, but recovered his health that winter campaign, and has been perfectly well ever since.

But the contrary transition, from a life in the open air to the housed life, is extremely dangerous, especially if one has been very long without doors. This was the case with the wild girl I saw in France, who was as averse to be housed, as the cattle and horses that have been bred wild: And, after she was housed, she made a most desperate effort to regain her liberty; for the Abbess of the Convent of Chalons in Champagne, where she was confined, showed me a window, a great deal more than three ordinary stories high, out of which she leaped into the street. However, she did

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* Page 32.—35. in the Note.

not get away, having hurt herself by the fall, which she imputed, as the Abbess told me, to the gross aliments (*les gros aliments*) they had given her ; and being brought back again to her confinement, she fell into a very bad disease, of which she had very near died. Prince Ferdinand's army, which had kept its health so well in the winter campaign, when they were brought back again to their winter-quarters, grew sickly. And, to give a very late instance of the same kind, Lord Cornwallis's army, which kept their health perfectly well during their winter-campaign in Virginia, without tents or covering of any kind, became extremely sickly when they were confined in that fatal camp where they were all made prisoners. And it is a fact well known, that we generally lose more men in winter-quarters than we do in the field ; which is foolishly imputed, by ignorant people, to the hardships they had suffered in the preceding campaign, not to the change of life.

I will give one instance more, which fell under my own observation, of the danger of this change. There is an old beggar in my neighbourhood in the country, who is eighty years of age, with a fresher look than most of this age have at fifty ; but he is lame, and goes from house to house upon crutches. I asked how he got his lameness. He told me he was one of the Duke of Cumberland's baggage-men in the year 1745 ; had been with him about three months ; and, during all that time, had never been under a roof, but had slept in the fields, with no other protection from the weather but his cart above him. He got his lameness, he said, by one exceeding bad night of violent rain in which he lay out, about the time of the battle of Culloden. I asked him how he was the next day ? He said, Very well ; and continued so all the while he was with the Duke, which was above a month ; but, after he came home, and began to lie in his bed, and to live as close and warm as he used to do, he was seized with a fever, which lasted more than a month, and ended in the lameness I saw. I asked him, Whether

any more baggage-men were taken from his neighbourhood ? He said, Several ; and they were all affected in the same way, more or less, after they came home ; and one or two of them died.

There is an instance much later than any I have mentioned. A woman appeared in the neighbourhood of Bristol, come from what part of the world nobody knows. She went about begging, and always lodged under a hay-stack ; nor could she ever be persuaded to sleep in a house. She was reputed to be mad ; but I could never hear any other proof of it, except that she would give no account of herself, and said, there was no happiness but in the open air, and that in the house there was nothing but trouble and misery. Some charitable people, but (to use an expression of Shakespeare) *fools of Nature*, have lately housed and confined her ; the consequence of which is, as I am informed, that her health, which was perfectly good before, is much impaired, and her mind begins to be really disordered.

What, then, can be the reason that the one change is so dangerous, while the other is not at all so ? It can be no other, I think, than this, that the one is from an unnatural to a natural life, the other from a natural to an unnatural.

I believe it is the same in the article of Diet, as of Housing. If a man, that has been always accustomed to a sober and simple diet, should at once be transported to a rich luxurious table, his health would undoubtedly be affected ; and I have heard of men falling, by that means, into very bad diseases ; whereas, if our rich men, who, like *Dives* in the Parable, fare sumptuously every day, were to be forced (for I believe they would not do it voluntarily) to live like poor men, they would be very much the better for it, even though the change was ever so sudden.

Thus, I think, I have proved, that the Life of Man in his natural state, when he was guided by instinct and not by opinion, was
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in the open air ; that nothing is more unnatural to man than the life of a Bugg, that is, a life of closeness and warmth ; and that the Savages of California were very much in the right when they could not be persuaded by the Jesuits, who went to that country to convert them, to sleep in their huts, but chose rather to lie at the doors of them, though, in every other respect, they were very docile and tractable.

The first step out of the air, which, I think, Hamlet says rightly, is *into the grave*, (if not immediately, sooner, at least, than we should otherwise go), is that which the New Hollanders have made,—into the hollows of trees. This shows me that those people have not only got some use of language, but have begun to form some opinions concerning what is good or ill in human life ; for instinct would not direct them, any more than a horse, to go into a hole, but, on the contrary, to come out of it, if they happened to be in it, as we see a horse does.

The next step in this road was, to take to earth, as we see a fox does, or to go under ground, into caves and dens. This, it appears, men have done in different parts of the world. The Cyclops, Homer says, lived in caves, as it is supposed, in Sicily. The Troglodytes in Africa, lived in that way, of old, from whence they had their name ; and Mr Bruce says, they still live in the same manner. And, when they came down the Nile, to inhabit the Upper Egypt, he says they made artificial caves, or holes, in the hills there, to be seen at this day, in which they lived. And, in some parts of Europe, particularly near Maistreicht, as I am informed, there are subterraneous caverns dug a great way into hills, where it is supposed men lived of old. The most extraordinary works of this kind, I believe, in the world, are to be seen in some parts of India, particularly in an island near to Bombay, where they have dug out of a basalt rock, so hard that our tools can hardly make any impression upon it, not only single

houses and temples, but little cities with streets ; and there are inscriptions there in characters more antient than the Shanacrit, and such as no body now living can read *. The work, therefore, must be very old, and, I should suppose, before cement was invented ; and, if so, they certainly could not, in any other way, have made habitations that would have lasted longer. And, indeed, where the material is so hard, I am persuaded, houses of that kind will last longer than any built with cement ; and I am not sure but these very houses are older than any building in the world, without excepting the Egyptian pyramids.

Next, I believe, in order of time, came houses above ground. These, I observe, among some of the barbarous nations, are very large, particularly among the Indians of North America, where they are from 150 to 180 feet long, and 36 feet broad, containing sometimes 24 families †. Ulysses's house in Ithaca had a room in it large enough to contain 108 guests at table, (the number of Penelope's suitors), 8 servants, besides the Herald and the Bard ; and there was room enough for him besides to stand at a distance, and shoot the suitors with arrows ‡. The larger the house is, and the nearer to no house, so much the better : Nor do I know any advantage that the rich have over the poor, so great as that of living in large rooms, and under lofty cielings ; and I am persuaded that there are few things more destructive of the human race than living in small cottages, especially if they be much heated with fire.

The next remove from the air, on which Virgil says we feed §, was a greater remove still, and such as cannot be justified by the example of any Brute. I mean the invention of clothes, by which we carry about with us a house, very much closer than any other house,

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* This information I had from a very ingenious man, Dr Lind, once of Edinburgh, now of London, who, when he was in the East Indies, went to see these strange habitations, and made a plan of them, which he showed me.

† Gabriel Sagard's Travels in the country of the Hurons.

‡ *Odys. Lib. xvi. Vers. 105. et sequen.*

§ *Vescimur aura.*

so close, that the air is wholly excluded from the body. Now, that the contact of the air, and its action upon the body, tends to strengthen and invigorate it, is obvious to the senses. For the skin, that is exposed to it, has a firmness and elasticity, which no skin covered can have ; and the colour of such a skin is the true carnation, very different from the livid white of our clothed skins, which is truly the colour of a white negroe, (a diseased and unnatural animal), not of men in the natural state. It was, I think, an excellent stratagem of Agesilaus, recorded by Xenophon in his life : Soon after his landing in Asia, in order to encourage his men by showing them what enemies they had to deal with, having got some Persian captives, he stripped them, and shewed them naked to his soldiers, who seeing their white, soft, flaccid bodies, (the effect, says Xenophon, of their never being stript nor exercised, and always travelling in carriages), considered them as no better than women, and were no longer afraid of them. And, indeed, it was chiefly by their exercising so much naked in the open air, that the Greeks were enabled to overcome men that were by nature bigger and stronger than they ; for such it appears the Persians were.

Further, by clothing our bodies, we give a check to that natural evacuation, which every body in health must have by perspiration ; for it is now discovered by experiment, that a man naked perspires more than the same man wrapped up in blankets, and in the warmest bed. This, I know, is contrary to the opinion of the generality of men ; but the error arises from confounding sweating with perspiration ; for, by wrapping a man up, and keeping him very warm, we make him sweat, but he perspires less.

But neither is this all the mischief that clothes do ; but there is a greater still remains to be told, which, I believe, is not generally known even to some of our doctors. It is this, that, instead of living in the pure circumambient air, we live in a sordid bath of the vapours of our own bodies, which are kept about us by our clothes. And even this is not all ; for these very vapours we
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must take in again by those absorbing vessels which are gaping all over our skin, it being as necessary for our animal oeconomy that we should inhale, as that we should exhale ; but it must make a great difference whether we inhale what may be called the excrement of our bodies, or the pure atmosphere.

I have heard it objected to the naked state, that in it we are liable to be wetted by every shower that falls ; and wet, it is said, does more harm than cold. But this, so far from being an objection to Nakedness, is an argument in its favour ; for moisture does not hurt, otherwise than by the cold it produces. Now, that cold is much greater while the wet clothes are about us, and greater still when they begin to dry ; for it is well known that evaporation produces a great degree of cold. But the naked Savage is free of both ; for the wet is not kept about him, but runs off him as it falls ; and, when that is the case, there can be no evaporation to produce cold.

There are only three ways of obviating these mischiefs of clothing, and they are but partial remedies. The first is, to wear as few clothes as may be, and these as loose and flowing as possible. This, I observe, was done by all nations in the first ages of their civility. There are some barbarous nations, which cover only those parts, that Nature, when it begins to be cultivated, directs us to hide. The Romans, as Aulus Gellius tells us, wore at first only a gown, and no tunic under it. And the Lydians, as Herodotus informs us, before they were conquered by the Persians, wore nothing but a single garment, till Cyrus, by the advice of Croesus, obliged them to wear a waistcoat, in order to make them effeminate *. I say, therefore, that, to wear many clothes, and these strait and close to the body, is very weakening, and few things more destructive to health.

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* Lib. i. cap. 155.—156.

The second palliative of the mischief is being much naked and in the open air, as the Greeks were, exercising in that way, and making much use of friction and anointing. This last was practised by all nations of old, barbarous and polite, and is still practised by all barbarous nations, but is now universally disused by the nations of Europe, for what good reason I know not : But I think I know, from my own experience, that it gives both strength and agility ; and, if it had no other good effect, we are at least so long naked, and in a natural state, while we are anointing *.

The last remedy for the mischief is frequent bathing, by which the crust, that must necessarily gather upon our bodies by living in so foul an air, is washed away, and our skin, for some short time, restored to its native purity †. Some vainly imagine they do this,
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* We read of a man among the Romans, in the days of Augustus Caesar, called Pollio, who lived to the age of ninety, in perfect good health, and chiefly, as it is said, by the use of oil outwardly. See *Hieronymus Mercurialis, de Arte Gymnastica, lib. 5. cap. 2. p. 30.* The reason which Lucian, in that admirable dialogue of his, *De Gymnasticis*, makes Solon give for the use of oil in the Greek Palæstra, is, that it both softens the skin, and makes it firmer, as well as more pliable ; for, says he, it would be absurd to think that the skins of dead animals, anointed with oil, should be stronger, and more difficult to be cracked and broken, and should last much longer, and yet that a living body should not be the better for it. If the learned reader is as great an admirer of the stile of Lucian as I am, he will be pleased to read it in the original : *Αποπον γαρ, ει τα μιν σκυτη νομιζομεν, υπο τῷ ελαιῳ μαλαττομενα, δυσχαρισιστα γιγνεσθαι, νεκρα γε κδη οντα : το δι ετι ζωης μετεχον σωμα μη αν αμεινον ηγοιμεθα υπο του ελαιου διατηρητεθαι.* (P. 797. of the folio edition of Paris, 1615.) I had a black servant from Senegal, who, when I asked him, why his countrymen anointed their bodies, gave me the same reason for it : ‘ We think our skins,’ says he, ‘ as much the better for being oiled, as ‘ you think your boots and shoes are.’

† The people of the Caribbee or Antillés islands, as the French call them, live very indolently, and, at the same time, are prodigious drunkards, getting mortally
drunk,

by putting on a clean shirt ; but they might as well think to make a dung-hill clean, by throwing a white cloth over it. The bath I would recommend is the cold bath, which will serve the double purpose of cleaning and of bracing. The warm bath may be used sometimes, for greater cleanness, as warm water cleanses better than cold : But I condemn the constant use of it, unless a man were to live the life of an Athlete ; for then he would need it, to soften and relax that rigidity which great labour produces ; but we, that live indolently and effeminately, need more to be braced than relaxed. The Greeks and Romans, when they exercised every day in the Palæstra, were, I am persuaded, the better for the constant use of it : But, when they became luxurious and effeminate, they were as certainly the worse for it ; for they used it then, not for refreshment after toil, but for mere pleasure ; and it was then properly compared to indulgence in wine or women, according to the distich,

*Balnea, Vina, Venus, consumunt corpora nostra ;
Sed vitam faciunt Balnea, Vina, Venus.*

But these, as I have observed, are but partial remedies ; and Nature never prompts an animal to do any thing that requires a remedy,

drunk, men, women, and children, very frequently, (our author says, once a week,) with a strong liquor, which they have unhappily learned to make of an herb they call *Manieck* ; Vol. ii. of Pere Tertre's history of these islands, p. 386. He says also, that the great pox is common among them in its highest degree of malignity, and is transmitted, from the parents to the children, as they have no radical cure for it, but only palliatives ; p. 409. And Father Raymond Breton, in his Dictionary of the language of this people, tells us that they are liable to several diseases, proceeding from their unwholesome diet upon certain kinds of coarse fish ; p. 340. 341. Notwithstanding all which, Pere Tertre tells us, that they live very long, to the age of 100, and upwards ; and their women bear children at the age of 80 ; p. 379. This, Pere Raymond, in the above quoted work, p. 383. ascribes chiefly to their bathing in the river three times every day.

medy, and much less a thing, that will not admit of a complete remedy.

I think, therefore, I may conclude with great certainty, that Man, in his natural state, has no clothes; and how, indeed, could Men be clothed, that had none of the arts of Vulcan or Minerva, and were neither farmers, manufacturers, nor hunters? And, I think, I have likewise proved, that they were much the better for not being clothed, and that therefore the naked savages of California, when they refused the offer the Spaniards made them of clothes, were much in the right *.

If Man, in his natural state, had not houses or clothes, I think, it will not be presumed that he had the use of fire. And, indeed, his case would be quite singular, and different from all other animals, if, in that state, he had not an abhorrence and terror of fire, like the people of the Ladrone Islands above mentioned †.

I observed before ‡, that it appears most extraordinary, that what at first was a terror and abhorrence, should have become a necessary of life to us. But Habit will account for this, which is commonly said to be a Second Nature, and, in some cases, it overcomes the first. And it does so with respect to fire, not only among us, but

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* See Gemelli Careri's Voyages, in Churchill's Collections, Vol. iv. p. 470. In the same country of California, but further north, the savages were likewise quite naked, though the cold was so extreme that many of the crew of a Spanish ship died of it, and the rest fell sick, so that they were obliged to leave the country, and go to a warmer latitude; p. 469. It was in this country that the natives likewise refused the invitation which the Jesuits gave them, to sleep in their huts, but rather chose to lie at the doors of them; See p. 83.

† Page 38.

‡ Page 39.

among the Brutes. The Fox, or Wild Dog *, has the same aversion to fire, that other wild animals have ; but we all know how fond of fire our tame dogs become. An Otter is more a water animal than a land ; yet I was told by a gentleman, that he saw a tame Otter so fond of the fire, as to lie within the fender.—So little can we judge of the Nature of a tame and housed animal from the inclinations he shews in that state.

But, though habit makes fire pleasant to us, and even one of the necessities of life, it does not for that make it good. The only effect of fire, with respect to our body, is to warm the atmosphere round it, and thereby give an artificial heat to it. But the true heat of an animal body is within it : Now, this heat the fire does not increase, but diminish ; whereas cold air and cold water increase the natural heat ; and accordingly they promote digestion and perspiration, which an air heated by fire checks, and, at the same time, relaxes the solids, and, in the end, debilitates the whole body.

Our travellers in the South Sea have furnished us with a remarkable example of the bad effects of fire. The people of New Caledonia,

* Buffon, upon the credit of some experiments, he made upon a fox that he had housed, and tamed in some degree, and who would not copulate with a bitch that was in season, takes upon him to pronounce decisively that the fox and dog are different specieses, and so far removed from one another, that they will not, like the horse and ass, even engender together. But the argument will not proceed from a fox housed and in captivity to a fox living in his natural state, who, as is well known in the sheep countries in the south-west of Scotland, copulates very frequently with bitches ; and they have a race of sheep dogs begot in that way, which are very different from the common sheep dogs, both in outward appearance and in their inclinations and dispositions. I myself saw at Langtown in Cumberland, near to the borders of Scotland, a bitch, who, as her appearance showed, was begot in that way, and who had had three litters at the time I saw her ; which proves what Buffon's experiments would not have proved, if they had succeeded.

donia, though they live within the Tropics, and, one should think, had no occasion for fire at all, yet use it so much in their huts, and make them so very warm, that Captain Cook says he could not bear to be in them a few minutes *. And I have no doubt, that the swellings and ulcers, which he says they have in their legs and feet †, are the consequence of this excessive use of fire; for otherwise they should be as free of disease as any people we know, living, as they do, in a good climate, having no use of fermented or spiritous liquors, and subsisting entirely upon the fruits of the earth, and fishing, and none of them living indolently, like the nobles of Ottaheite, but all obliged to labour for their food. And, indeed, I am persuaded that a great part of our diseases, and particularly that foul disease, the King's Evil, which has increased so much of late, are owing chiefly to the excessive use of fire, and of close air fouled by fire and animal breath.

It is said in favour of fire, that it cures damps in the air. But I say, a moist air is not unwholesome, but rather the contrary, unless it be loaded with putrid vapours; and for proof of this I appeal to well known fact, that the sea air, which must necessarily be very moist, is nevertheless very wholesome and often cures men of diseases that they had got at land. The little islands of St Helena and Bermudas, where the air is constantly full of vapours from the sea, and very often of its spray, are remarkably wholesome. But, suppose the air to be loaded with putrid vapours from fens, I say the fire will not correct it, but rather make it worse; for I hold, in general, that all air fouled, whether by the breath of animals, or by such vapours, becomes more noxious by being heated. In short, I do not know any other good use of fire, except what I have heard

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* Captain Cook's Second Voyage, Vol. ii. p. 121.

† Ibid. p. 119.

is made of it in Jamaica, where, if the sea-breeze has ceased for a day or two, which produces a stagnation in the air, they kindle fires in their houses, in order to make a current of air.

The use of fire, therefore, only serves to aggravate the mischief of houses and clothes, which otherwise would not be so pernicious ; and not being a good thing in itself, we cannot suppose that Nature would prompt any animal to the use of it.

My next inquiry is concerning the food of this Animal. And here it may be observed, that, as Man is more a commoner of nature than any other Animal, and destined to live in every country and climate, so his food is more various than that of any other ; for there are men that live entirely upon vegetables, others upon flesh only, others upon fish almost entirely, which is the case of the Esquimaux, who, though a land-animal, eats hardly any thing that the land produces *. And, lastly, a great part of mankind eat all the three,

* These Esquimaux, with respect to their diet and manner of life, are, I believe, the most extraordinary people in the world ; and, as I am very particularly informed concerning them, by a man who was twenty-five years in their neighbourhood, and trafficked with them, (I mean the above mentioned Mr Graham, who was so long upon the side of Hudson's Bay, in the service of that Company), I will give the reader a more authentic account of them than, I believe, has hitherto been published. They employ themselves in fishing about 4 months in the year, when the sea is open ; and their chief game is the whale, which they, in small canoes, such as those of the Greenlanders, will attack and kill with their harpoons. They also kill seals with their spears and arrows, during the fishing season. All that time they are constantly at sea, and live upon the flesh of the whale and of the seal ; and, by way of sauce to it, they use the blubber and oil of the whale ; and drink the oil by way of cordial, as we take a dram. What they do not consume of the flesh or blubber of the whale, or flesh of the seal, they preserve for their winter provision, in bags of seal skins ; and upon this food they live chiefly during the eight months of winter, putrid, as it may be supposed, and stinking, in the highest degree,

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three, fish, flesh, and vegetables. But, though he can live upon any one, or all of these, yet one of them may be more natural, and more agreeable to his constitution, than another. The least natural of any of them, I think, is fish, for a land animal ; and, accordingly, we see that the Greeks, at the time of the Trojan war, did not eat fish, unless they were forced to it by extreme hunger *. As to flesh, it

so that our people, who traffick with them for train-oil and whale-bone, can hardly bear the smell of it. As to land-animals, they sometimes kill deer in the winter time ; but, as the Indians carry on a cruel and implacable war with them, killing them wherever they find them, they dare not venture far from the sea, and have very few habitations upon the continent, but live chiefly, during the winter, in the islands in the Bay. They have, therefore, very little use of the flesh of land-animals ; and what they use of that kind is all preserved in the same way as their sea food, and eaten with the same sauce : And as to vegetables, they never taste them. They show, therefore, I think, more than any other people in the world, how soft and pliable the Promethian clay is, and how it can suit itself to the most unnatural life that can be imagined for a land animal. The effect, however, of such a life, and particularly of their diet, is, that their flesh is almost as soft as the blubber upon which they feed ; and they are but weak and puny animals : Nevertheless they are very lively and alert, sing, and dance ; and my author says, he believes, that they are liable to as few diseases, and live as long, as we do ; and Buffon says that they live very long (Vol. iii. p. 486.). And the Greenlanders, who live pretty much in the same way, he says, live to an extreme old age, and are liable hardly to any disease, (Ibid. p. 377.). I think, however, it is impossible, by the nature of things, that the Esquimaux should be so healthy and long lived as they would be, if they lived in a more natural way.

The moral of this history of the Esquimaux is, that, though living in the way in which the necessity of their situation and circumstances oblige them to live, they cannot be said to be a happy people ; yet, as they are not vitious, nor diseased in any degree, neither can they be said to be unhappy, (for it is only vice and disease that make men miserable ;) and I know many men in this island, reputed very happy, who, if they were to change lives with the Esquimaux, would, in my opinion, make a very good bargain.

* This was the case of Ulysses and his crew, when they were confined to the Island of the Sun. See *Odyss.* xii. vers. 331.

it is the natural diet of an animal of prey, which I hold Man by nature not to be ; and I am persuaded it was only necessity at first that made him eat flesh, such as obliged Ulysses's crew to eat fish * : For Man is not armed by nature as a beast of prey is ; and therefore all the Savages, that live on flesh, have invented instruments of one kind or another for killing their prey ; which shews that eating of flesh must have been posterior to the invention of at least some arts. Besides, Man is by nature a gentle, humane animal, so as not to be disposed willingly to prey upon his fellow animals. In support of this theory, I think, it is a remarkable fact, which Bougainville, the French Admiral, relates, That, when he landed in the Falkland Islands, which were then uninhabited, the beasts and birds came about them, without the least dread ; the beasts running among their feet, and the birds perching upon their heads and shoulders. And a like story is told in Churchill's Collection of Travels, of the birds in some islands in the South Sea, called by the Spaniards *De Los Gallipos*, being so little frightened by men, that they suffered themselves to be killed by cudgels †. This they would not have done, if Man had been by nature an animal of prey ; for their instinct would have directed them to shun him, as the wild animals in this country learn by experience to do.

I hold, therefore, that the most natural food of Man, and what he lived upon in his primitive state, is Vegetables not prepared by fire, of which he had not then the use. Accordingly, the Oran Outan eats nothing else. The Indians, the most antient nation now in the world, kill no animals for food ; and the wild boy *Peter*, who was once in the perfect natural state, even after he was
caught

* Ibidem.

† Vol. iv. p. 458.

caught and brought to England, delighted in no food so much as raw herbage, as I was told by an old woman, formerly mentioned *, who said she saw him feed upon the raw leaves of cabbage. Pythagoras, I should think, must have believed that raw vegetables were the natural, and therefore the best food of Man, when he used them so much himself, as Diogenes Laertius, in his Life, informs us. And we learn from a French Doctor, whose observations on the scurvy are published in the Philosophical Transactions †, that, in an hospital at Moscow, -he cured the scurvy by raw vegetables, when he could not cure it by vegetables boiled or roasted ‡.

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* See Page 64.

† Vol. 68. Part 2. page 661.

‡ There appears to me to have been a tradition preserved among the Greeks, of their ancestors having lived upon vegetables, particularly upon the asphodel and mallows. This I infer from a passage in Hesiod, where, speaking of the advantages of a sober diet, he says,

Νυπιοι' ουδ' ισασι' ὅσῳ πλεον ἤμισυ παντος,

Ουδ' ὅσον ἐν μαλαχῇ τε καὶ ἀσφodelῷ μεγ' ονειρε.

Opera et Dies, Vers. 40.

from which lines it is evident to me, that, even in his time, the poorer sort of people must have lived chiefly upon these two herbs; and I have no doubt that he believed that the happy in his golden age lived in the same manner. And, accordingly, Homer makes the heroes in his Elysium live in meadows of asphodel; (Odyss. xi. Vers. 537.) The mallows is a plant well known, called in Latin *Malva*, and has been much used for food by several nations, particularly the Romans, at least, by such of them as lived simply and frugally. Accordingly, Horace describing his diet to be of that kind, says,

—— ‘ Me pascunt olivae,

‘ Me cichorea levcsque malvae.’

Lib. i. Ode 31.

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If vegetables be the food of Man in his natural state, there are some countries of the earth that never could have been inhabited by men in that state, as they do not produce vegetables, at least thro' the whole year, upon which men could subsist. We must suppose, therefore, that the present inhabitants of those countries have come from other countries, and have brought along with them the arts there invented, upon which they were enabled to subsist in those inhospitable regions. The Esquimaux, for example, never could have been originally of the country, or rather the sea, they inhabit; for it is evident they must have starved before they could have invented the arts by which they live. It is therefore, only, in better countries and milder climates, that men ever could have lived in the natural state; and we must suppose that from thence they have migrated to worse countries and from these to worse still,

The asphodel is not so common a plant. But Dr Hope of Edinburgh has raised it in his physical garden, and I have seen it, and tasted of it. There is something acrid in its taste, but I think it is not at all unpleasant; and, I am persuaded, that, mixed with the mallows, or any other soft laxative herb, it would be very good food. And, accordingly, Theophrastus speaks of the roots of it, being beat up with figs, and in that way used as food. Eustathius, in his commentary upon the verses of Homer above mentioned, quotes an epitaph upon a sepulchre, from which it appears that they were in use to sow both the mallows and the asphodel upon tombs; and in that epitaph the asphodel is said to be *πολυρίζος*, or *of many roots*; which convinces me that it is the very same plant that Dr Hope showed me; for it had many roots or knobs; and it was one of these that I tasted. There are authors who say, that, in some countries, it has commonly fourscore of these knobs; and the Doctor tells me, that one Clusius says he saw in Portugal a root of it, which contained above 200 knobs, and must have weighed above 50 pounds. A plant of that kind, in such a country as Greece before it was cultivated, would maintain great numbers of men, especially if we suppose, as Homer seems to do, that the meadows were quite covered with it. I have only farther to observe, that the sowing the mallows and the asphodel upon the tombs or mounds of earth that were raised over the dead, seems to show that the common belief was, that these plants were the food of the happy men that lived in better days, and therefore might be supposed to be the food of such men, as, after their death, were to go to that happy world.

still, till, at last, they have gone to the uttermost ends of the earth, and possessed countries far

Extra anni solisque vias,

such as Lapland and Greenland, Labrador, Patagonia, and Terra del Fuego, where the inhabitants of happier climates wonder that Man can live, and where the Antients did not believe that he lived.

As to the drink of the Natural Man, it could be no other than water ; nor can I believe that he desired any other, more than his fellow animals, who, we know, will drink nothing but water, unless when they are taught to do otherwise by us, not without a good deal of trouble.

There are, however, some so ignorant of Nature, as to believe that we have by Nature an inclination for wine, and even spirits. They support their opinion by observing, that our children seem to be fond, not only of wine, but of spirits. What the inclinations of the children of men, in the habit of drinking those liquors, may be, I will not take upon me to affirm. It is not improbable that such inclinations, as well as bodily qualities, and dispositions of the mind, may go to the race ; but this I will take upon me to aver, that no Savages, who themselves, or their fathers, have never drunk strong liquors, will have any inclination for them.

The men of New Zealand would not taste our wine or spirits ; and I think it was a cruel action of one of our officers, to entice a boy of theirs to get drunk with sweet wine*. I know a gentle-

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* Foster's Voyage.

man who was several weeks aboard a ship with nine savages, picked up from an island in the South Sea, who would not taste a drop of our strong liquors *. And Mr Graham, the gentleman that I have so often mentioned, informs me, that the Esquimaux, though they traffick a good deal with us, have not yet learned from us to drink brandy, but reject it when offered to them. Yet there are many among us, who believe that, without the use of spirits, it is impossible to live in such a climate as theirs.

There is a story told by William Funnell, an English navigator, in the account of his voyage to the South Sea, in 1705, which shows how violent and unnatural the effect of spirits is upon those who have not been accustomed to drink them. He says that he touched at Pagon, one of the Ladrone or Marianne islands, where, as I have said, the men are above seven feet high, and broad and strong in proportion. Some of them came aboard his ship, to whom he offered spirits, of which they would not accept, being, as he says, afraid of them ; but, seeing our people drink them so freely, one of them, bolder than the rest, made signs that he would drink with them. Upon this they gave him a glass of brandy, which he swallowed. It was no sooner down his throat, than he began to gasp for breath ; and continued gaping so long, that, our author says, they thought he would never shut his mouth ; at the same time, making signs that he had swallowed fire, and that his stomach was burnt. Then he lay down upon the deck, and roared like a bull, so that some of his countrymen ran away in a fright. At last, he fell into

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* His name was Scot. He was aboard the Warwick East Indiaman, which, in the end of the last war, by taking a round about way homeward, in order to avoid the French privateers, fell in with an unknown island in the South Sea, from whence they got those nine savages ; one of whom died aboard the ship, and the other eight made their escape. I have in writing a particular account of the whole affair, in which there are sundry things of curiosity ; but they do not belong to the subject we are now upon.

a profound sleep, and in that state was carried aboard the canoe in which he had come *. If these so big and strong men were so much affected by a single glass of spirits, what must be the effect of it upon men such as we? I myself knew a young man that had never tasted spirits, and drank very little wine, who was, by a dram which was prescribed him for the cure of a cholic, very near killed. It is therefore evident, that nothing but a bad and unnatural habit of body, produced by the custom of drinking spirits, can make the use of them, even in small quantities, tolerable to us. But, though custom will make them not only tolerable but pleasant, and even necessary at last, it is impossible that any custom can make them good and wholesome, any more than laudanum, which some people, we know, can take in considerable quantities, without finding any immediate inconvenience from it, but, on the contrary, it appears to do them good for the time.

From this we may judge whether it be possible that a man in the natural state can by instinct, his governing principle in that state, be led to take of such a violent drug; and whether, on the contrary, he must not have naturally a strong aversion to it. The aversion, however, to this internal fire, as well as to external, may be overcome by habit; and, accordingly, we Europeans have been at great pains to overcome it among all the barbarous nations with whom we have had any intercourse; and have succeeded so well, that some of them we have absolutely destroyed, and the rest we are in a fair way of destroying.

Thus, I think I have proved, that Man is by nature a most hardy animal, and can endure as much extremity of weather as any animal

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* Callender's Collection of Voyages, Vol. iii. p. 178. where it is to be observed that the island, by mistake, I suppose, of the printer, is called *Magon*, whereas the true name of it is *Pagon*.

mal God has made, without any artificial covering; so that he may, if he have a mind, be all face, like the Scythian of old, and be so much the better for it *: Further, that he has no need of fire, either for warming him, or preparing his victuals: And, lastly, that his natural food is vegetables, and his drink water.

It now remains to be considered in what state such an Animal must be, with respect to strength and size of Body, health and longevity.—But this must be the subject of another Chapter.

* See *Ælian's Various History*, Lib. vii. cap. 6. This saying, I think, was a most sensible one; nor do I think it is possible to give any good reason why the fore part of our head should be bare, and not our whole head and our whole body. The Russian peasants, I am persuaded, might in the same manner make themselves all neck; for they go about, in that most severe climate, with their necks bare; and yet fore throats are a disease almost unknown among them. This I know by information from a physician in that country, Dr Guthrie, who has published in the *Philosophical Transactions*, a particular account of the manner of living of these peasants, (Vol. 68. p. 622.) And here, in our own country, we see boys and girls going about, in the severest weather, with their necks, and a great part of their breasts, bare.

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C H A P. III.

Opinion of those who think that Men have always been the same in their Bodies in all Ages of Society, and even in a State of Nature.—Improbability of this Opinion with respect to the State of Nature.—The Opinion, that we are improved as to the Body, much more probable.—We must judge of Men in the State of Nature, by Men in States of Society near to that State.—Of the Heroic Age in Greece.—Homer, the Historian of that Age:—His Poems not to be considered as a mere Fable, particularly as to Manners and Customs.—The Size and Strength of his Heroes to be considered as Part of these Manners.—No Allegories in Homer.—The Heroic Age in Greece lasted for some Generations;—continued after the Trojan War,—particularly in Sparta.—The Greek Race much declined at the time of Xerxes's Invasion.—The Romans originally Greeks,—had their Heroic Age too.—Though declined in later times, did wonderful things.—Of the Arts they employed to preserve their Bodies strong and vigorous.—The Opinion that Men have continued always the same, not reconcilable either with Sacred or Profane History.

THERE are certain philosophers in France and Britain, at present, who cut this matter very short, by telling us, that, in order to know what Men were in the State of Nature, (if ever such a State existed), or in the different states through which they have passed since they left.

left that state, we have no more ado, but to look about us, and consider the Men of this nation at present, and of the other nations in Europe. According to them, Men have been always the same in all ages and nations, equally strong of Body, and of the same size; equally healthy, and equally long lived; so that, though states have had their times of prosperity and decay, Men have always continued the same;—In short, that all the complaints of the degeneracy of Men, which have gone on from the days of Homer down to the present times, are altogether without foundation.

Whether Men have always continued the same in the several states of Society, thro' which they have passed, or whether they have not, in one state of society, improved more, or degenerated less, than in other states, we are not now to inquire. But the present question is, Whether Man, as we see him now in Europe, is the same Animal in Mind and Body, that he was in the natural state? Those who maintain the opinion above stated, will readily admit that he is not the same animal with respect to the Mind: For they would be affronted if they were to be told that their Mind was no better than that of a mere savage; and it is undoubtedly true, that, by Arts and Sciences, and the intercourse of Social Life, our Intellectual Part is wonderfully improved, and, indeed, I think, created. The question, therefore is, Whether or not our Animal Part, or, in other words, our Body, is likewise improved, or if it only continues the same? That it is improved, and that we are healthier, stronger, larger of Body, and longer lived, than we were in the natural state, I have met with none who was so great an admirer of modern times, as to maintain; all they pretend to is, that we are not degenerated in any of these articles.

It must certainly give a man very great comfort to think, that, while he is so much improved in his understanding, he is not fallen off in his Animal Part: And, if he can further persuade himself, (which some persons find no great difficulty to do), that he is like-
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wife as good a Man, both in Mind and Body, as any that ever have lived in the social state, he must, I think, be as happy a Man as his own opinion of himself can make him. But, when he pays such a compliment to himself, I think he pays but a very indifferent one to his species. And, what is worse, it is impious, in my opinion, to maintain, that a creature, so weak of body, so diseased, and so short lived, so disordered likewise in Mind, notwithstanding all our boasted improvements in Arts and Sciences, in short, an Animal so miserable as by far the greater part of Men in the civilized nations of Europe are, should have come, in that state, directly and immediately out of the hands of a Creator infinitely good as well as wise. For it would be supposing that God had made the chief animal here below much more miserable than any of the inferior, even such of them as we have taken under our care, and applied to our uses, though they be more miserable than those in the natural state ; whereas my philosophy is, that Man, as he came out of the hands of his Creator, was the most perfect of all the animals here on earth, and consequently the happiest, as happy as the mere Animal could be : But he was destined for a higher sphere and greater happiness. For this purpose, it was necessary that his nobler or intellectual part should be separated from his animal, with which, in this state of our nature, it is loaded and incumbered. This separation, or *death*, as it is called, cannot be, by the nature of things, without great pain to substances so closely united. The dissolution goes on quicker, or slower, from the moment the intellectual part begins to exert itself ; for then it begins to prey upon the animal part in several ways, but chiefly by the invention of those arts which, I have shown, are so destructive to the Body. In the Individual, the dissolution is much sooner accomplished ; but, in the Species, it continues very much longer, and goes on, like other things in Nature, by slow and insensible degrees, till at last the animal Man dies out, and his intellectual part, being thus separated from his animal, appears again in some other form, more or less perfect, according to the progress it made in this life in its separation.

paration from the animal.—But of this more hereafter, when I come to deduce the Philosophy of Man from his History, which is my subject at present.

After what I have said of the State of Nature in the preceding Chapter, and of the difference betwixt the Savage and Civilized Life, it is, I think, very difficult to believe that such a difference in the manner of life should have made no difference at all upon the Body, with respect to size, health, strength, or longevity. What greater difference can there be in the food of the same Animal, than betwixt vegetables, flesh, or fish,—betwixt raw vegetables, and vegetables, flesh, or fish, prepared by fire? What a difference betwixt water, the only drink of Savages, and beer, wine, or spirits? And, again, What a difference clothing, housing, and the use of fire, must make? and how greatly that difference must be increased, when the use of those unnatural things is continued for hundreds and thousands of years, with all the refinements that art and luxury can make upon them? Is it possible to believe that so unnatural a life, continued from generation to generation for such a number of years, will have no effect upon the race?

When I consider all these things, I cannot help thinking that it is much more probable, though it be an opinion, as I have said, maintained by nobody, that, by civilization, we are much improved in Body, as well as in Mind, and are bigger, stronger, healthier, and longer lived, than Men in the Natural State; whereas the opinion, which maintains that we continue the same in all these articles, appears to me the most improbable opinion that ever was seriously maintained: But we live in an age of paradox and great discoveries. I shall therefore, in compliance with the taste of the age, examine this opinion as seriously as I would do the most plausible opinion, though I am persuaded that a Man, learned in the history and philosophy

philosophy of his own species, will think it unworthy of a serious refutation.

There are not, as far as we know, any men at present to be found in the pure natural state, that is, going upon all four, and without arts of any kind ; for even the Oran Outan walks erect, uses a stick for a weapon, builds huts, and covers the bodies of his dead with branches and foliage. He comes, however, nearer to that state, than any other of the human species that are to be found in numbers, or living in any kind of society. And there is one thing concerning him, in which all accounts agree, that the Pongo, or Great Oran Outan of Angola, of whose humanity we are best assured, is an Animal very much superior, in size and all the faculties of the Body, to any Men now in Europe. Some travellers speak of his strength as wonderful, greater, they say, than that of ten Men such as we *. But of him I have said enough already in this Volume, and in the First Volume of the Origin and Progress of Language ; and I will now proceed to speak of Men, with whom we are better acquainted, they having been formed into nations whose history has been handed down to us. All these, at some time or another, have been in the natural state, but of which there neither is, nor can be, any record. It is therefore impossible that we can judge of them in that state, otherwise than by what we know of them in the first ages of society, or in ages much nearer to the natural state than that in which we live. For, I think, it must be presumed that those men could not be very much changed for the worse, in the qualities of the Body, unless we suppose, what the gentlemen against whom I argue will certainly not admit, that the decline in the social state is very great and quick.

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* Buffon. Nat. Hist. Vol. xiv. p. 49.

There is no nation that I know, of whose first ages we are so particularly well informed, as of the Greek nation. There has been, I am persuaded, in every nation, what I call an Heroic Age, that is, an Age of Men of extraordinary size and strength of Body as well as of Mind : But of the Heroic Age of Greece we have a much more circumstantial account, and, I think, much better vouch-ed, than of the same Age of any other nation. The chief historian of this Age is Homer, who certainly lived near to it, I believe in the next generation, and who ought not to be counted less an historian because he wrote in verse, the only way of writing at that time and for many ages after. And, as I believe that the Greeks had the use of letters before the time of the Trojan war, and, as I think, it is impossible that Homer could have been the first writer in Greece, I am persuaded that he did not write from tradition only, though it was then recent, but from records and the writings of other poets before him : And particularly, I am persuaded, that the catalogue of the Greek forces, the number of the ships of the several nations, and the names of their leaders, were taken from some written evidence : Nor can I disbelieve the events of that war, as related by him, any more than his catalogue, his genealogies, or his geography : Which last is allowed by all antiquity to be most exactly true ; and accordingly it is used by Strabo as a kind of text for his geography of Greece. But, if I were of the opinion of those gentlemen, that the Greeks of those days were just such men as we are, I must either disbelieve entirely the facts related by this *historian of the Trojan war*, as Horace calls him *, or think them most ridiculously exaggerated.

For, if his heroes were such men as we, how could I believe that they carried such a weight of armour, that they fought, run, swam, ate, and drank, as Homer has made them do ; and, if this be incredible,

* Trojani Belli Scriptorem, maxime Lolli.

Lib. 1. Epist. 2.

dible, Homer, who has hitherto been understood to be the most chaste, and least hyperbolical in his descriptions, of all Poets, will be found to have exaggerated through his whole narrative, almost as much as Virgil has done in some particular passages, such as that where he describes Camilla *running over the unbending corn, and skimming along the main, without wetting her feet* * ; or that where he speaks of the billows in a storm, as *washing the stars, so that the Trojans saw them dropping* † ; or when he describes a hero lifting a stone to throw, that was *no small part of a mountain* ‡. For my own part, I would rather believe, as some are inclined to do in this unbelieving age when every thing is called in question, that the whole story of the Trojan war, the manners as well as the men, were a mere fiction, like Gulliver's Travels, or Ariosto's Tales of Knights and Enchanters, than suppose that an author, so remarkable for the chastity of his style and the truth of his descriptions, should have exaggerated so extravagantly and ridiculously ; for, to ascribe the actions he relates to men such as we, would be altogether ridiculous, and make of his work a mock heroic poem, such as his Battle of Frogs and Mice. I think, therefore, it is better to suppose the whole a fiction : And this discovery will add greatly to the glory of this century, in which, as we are informed by a discourse lately pronounced in the French Academy, upon the reception, as a member, of the Marquis of Condorcet, a lad, just come from school or college, has more knowledge, not only than all the men of antiquity, but even than the learned of the seventeenth century §.

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* Æneid. 7. Vers. 808. et sequen.

† Æneid. 3. Vers. 567.

‡ Æneid. 10. Vers. 127.

§ The reader will naturally ask here, whether I believe in all the stories he tells of the part the Gods and Goddesses act in this war ? To which I answer, That the belief

The Age of the Trojan war is not the only Heroic Age in Greece, but there were other ages, both before and after that, which may be justly called Heroic. Two generations before the Trojan

belief was universal in those antient times, that the Gods did interpose in human affairs, and often appeared in visible forms. In much later times, the Romans believed that Castor and Pollux fought on their side in the battle of the lake Regillus : And, in times very much later still, I have no doubt that many of the Spaniards believed that their tutelary saint, St James, appeared on horseback to assist them in a great battle that they had with the Peruvians, (See Garcilasso de la Vega's History of the Incas.) I am therefore persuaded, that a great part of those stories of Gods and Goddesses assisting the Greeks and Trojans in that war, were not fictions of Homer, but were stories generally believed at the time he wrote, as much as stories of witches, ghosts, and apparitions, were believed in this country 200 years ago. It may be further asked, Whether I do not believe that there is a great deal of allegory in Homer ? To this I answer, That there were critics of old, mentioned by Eustathius in the beginning of his Commentary upon the Iliad, who allegorized every thing in him, the human as well as the divine personages. But Aristarchus, the best critic, I believe, that ever wrote upon Homer, allegorized nothing, as Eustathius tells us in the same passage. And, for my own part, tho' I see that Homer personifies some qualities of the Mind, such as *Fame* and *Strife*, and *Fear* and *Terror*, (as he does even his darts and arrows, by giving them appetites and desires, as Aristotle, in his *Rhetoric*, has observed), I do not call that an Allegory, as it is despatched in a word or two, or, at most, in a line or two, but only a poetical figure of diction ; not like Virgil's description of *Fame*, of which the hint, and, indeed, the substance, is taken from Homer's description of *Strife*, but which is truly an allegory, being carried on for 16 lines, and is therefore, I think, improper for an heroic poem, which ought, to be a narrative of facts, whereof the actors are real personages, not such shadowy beings. The allegorising system, however, I like much better than the hypothesis of those, who, without seeking for an allegory, suppose that, not only the personages, such as Achilles and Hector, and even the city of Troy itself, are mere fictions, intended only for pleasure and amusement, but likewise the manners and customs, civil and religious, which Homer has described so particularly. Now, I think, the strength and size of his heroes are part of what the Italians call *the costume*, which, therefore, I hold not to be a fiction, any more than the rest of the *costume*. But, if it be true, as I have heard it maintained, that the city of Troy never had an existence, there is an end of the siege of Troy, and of all the events there, narrated by Homer, and all the manners and customs described by him ; and Plutarch must be mistaken, when he relates, that Alexander paid heroic honours to Achilles

Trojan war, there were those heroes whom Nestor mentions *, in company with whom he fought when he was a young man, such as Perithous, Dryas, Theseus, and the rest of them ; among whom, it is to be observed, that Homer does not name Hercules, who, it would seem, was not engaged in that war with the Lapithae, but was the greatest of all the heroes of that age, and such a man, that, I think, it is impossible for any one, that is not most violently prejudiced in favour of modern times, to believe that the like of him exists at present, at least in Europe. And, I think, M. Gebelin, in his *Monde Primitif*, makes the most of the story of Hercules, in favour of the opinion, that men of all ages have been the same, when he allegorises him, and supposes him to be a type of the sun, as he likewise supposes Romulus the founder of Rome to be. The generation after that, being the one immediately preceding the Trojan war, produced those heroes who fought and fell in the first Theban war, such as Tideus and Capaneus, whose sons, Diomede and Sthenelus fought at Troy †. After the Trojan war,

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Achilles at his tomb, (See Plutarch, in the Life of Alexander), and likewise Amianus Marcellinus, when he speaks of the tombs of Achilles and Ajax being extant in his time, (Lib. 22. cap. 8.). Such a wonderful discovery as this, must not only exalt this age above antient times, in point of philosophy and science, according to the opinion of the French academician above mentioned, but also in point of historical knowledge, showing that we understand antient history much better than the Antients themselves did. After such respectable authorities are set aside, I am ashamed to mention the testimony of Dr Trumbull, who was much in the East, and travelled all over the *Troade*, and who, if he be still alive, is now in Florida. He told me he saw the tomb of Achilles, and paced it round, being a great mound of an oval shape, telling me, at the same time, the dimensions of it, which I have forgot. He said, he also saw the tomb of Hector near to that of Achilles, and likewise the tomb of Ajax on the Rhetaean Promontory.

* Iliad. i. Vers. 262. 263 &c.

† There are many, I believe, real scholars, who doubt much of the truth of the history of Hercules and the other Grecian heroes, before the Trojan war ; but, whoever will
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we cannot suppose that the heroic race ended at once, but that it continued, with some diminution, no doubt, of the size and strength of men, such as Nestor observes there was from the time of the war with the Lapithae, down to the expedition against Troy. The Dorians, who, under the Heracleidae, invaded Peloponnesus, about 80 years after the Trojan war, and established there those three famous kingdoms of Sparta, Argos, and Messena, were, as Plato informs us *, Greeks who had been at the Trojan war, or their descendants. And in Sparta, the most heroic race of any, I mean the race of Hercules, was most wonderfully preserved, by the laws and institutions of Lycurgus, much better, I believe, than in other countries, where his race also reigned ; and, in general, the men of Sparta were, as late down as the days of Xenophon, the best bodied men in Greece†. There was then, however, no doubt, a very great decline, even in Sparta, from the heroic size ; for, three or four generations before Xenophon, when Xerxes invaded Greece, it is evident, from Herodotus's account of that war, that the Persians, who were a much younger

take the trouble to read, not the mythological writers only, such as Apollodorus, but the account given by a grave historian, and one of the most accurate and diligent of antiquity, I mean Diodorus Siculus in the Fourth Book of his History, cannot doubt but that such men existed, and that there was among them a spirit of gallantry and adventure, such as was in Europe in the days of chivalry, which made them undertake expeditions into remote countries, and perform wonderful actions, that were recorded by many different historians, but who, like historians in much later times, differed a good deal from one another in particular facts, as Diodorus informs us.

* Lib. iii. *De Legibus*, p. 682. *Edit Serrani*. He says that these Greeks, after their return from Troy being driven out of their several cities by the factions that were formed against them in their absence, assembled together under one leader, called Dorus, from whom they took the name of Dorians, instead of Achaeans, as they were called before.

† Xenophon, in his *Treatise on the Lacedemonian Polity*, towards the beginning.

younger nation than the Greeks, were much finer bodies of men than the Greeks were at that time. But, such as they were long after that invasion, it is difficult, I think, to believe that there are any men now in Europe that could stand a conflict, like that of Leuctra or Mantinæa. And, indeed, if I were of the opinion against which I am now arguing, I should believe as little of the ancient history of Greece, even after the æra of the Olympiads, when true history is said to begin, as of the heroic ages.

The Romans were a nation mixed of several colonies of Greeks, which settled, at different times, in Latium. The Halicarnassian counts four of them, the last of whom were the Trojans under Æneas* ; for, that the Trojans were originally Greeks, he has, I think, proved very clearly : And, indeed, I require no other proof of it than what Homer furnishes ; for it is evident, from his account of the Trojan war, that the Greeks and Trojans spoke the same language. Nor were there any in either army who spoke barbarously, except the Carians †. Now, there is no stronger proof of two nations being of the same race, than their speaking the same language. The Romans had their Heroic Age, as well as the Greeks, their progenitors. Nor do I think this age was ended when Romulus, who was the 17th ‡ from Æneas, founded their city ; for he was a hero, excelling not only in fight, but in council and civil prudence, as the Halicarnassian tells us. That his citizens, in process of time, degenerated from the size and strength of their progenitors, I cannot doubt ; though, I am persuaded, that, considering the way in which they lived, especially in the early ages of their city, the decline was very slow ; so slow, that it is not taken notice of by any of their old writers : But, even in la-
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* Dionysius's Antiquities, Lib. i. Cap. 60.

† Iliad. ii. Vers. 867. where he speaks of the Καρα Βαρβαροι.

‡ Dionysius's Antiquities, Lib. i. Cap. 25.

ter times, when their city was 600 or 700 years old, they did such things, as must appear absolutely incredible, if we believe them to be such men as we are. Who can believe, upon that supposition, that they made such marches as we read of, loaded, as Josephus says, like mules; for they carried, not only very heavy armour, offensive and defensive, but also three or four stakes, for the fortification of their camp, an ax, a saw, a mattock, and a basket, besides some other little instruments, and sometimes a month's provision in corn, not in bread, and always more than half a month's *? Who can believe that the usual exercise of the Roman soldiers was a *decurſio*, or race under arms, of four Roman miles †? Who can believe that, in the great battle with the Cimbrians, the fiercest and strongest people, I believe, the Romans ever had to do with, fought about the time of the summer solstice, there was not, as I have observed before ‡, a Roman sweated, or so much as blown?

And

* See upon this subject, Justus Lipsius, *de Militia Romana*, Lib. v. Dialogue ii. The weight of their offensive armour must have been very considerable; for, besides their sword, which was strong and heavy, and did both cut and thrust, the *pilum*, of which they carried two, was a very massy weapon: And, when we add to this, the weight of the *scutum*, which covered their whole body, and was framed, partly of hides, and partly of metal,—their coat of mail, which was all of metal, their helmet,—and their greaves, or covering of their legs, with the additional weight of the implements they carried, I do not think that Josephus has at all exaggerated, when he says they were loaded like mules. And, as to their marches, I refer the reader to what Lipsius says in the Dialogue above quoted, and to Dialogue xiv of the same Book, where he shows, that, by way of exercise, the Roman soldiers were in use to walk twenty Roman miles in a day under arms. This they performed in five hours of their summer's day; for the Antients divided the day, that is the time from sun-rising to sun-setting, into twelve hours; and therefore the hours of a summer's day were longer than those of a winter's. This was their ordinary military pace; but sometimes, when the business was very urgent, they would march twenty-four miles in the five hours, which, with the prodigious weight, they carried, of arms and instruments, must appear to us incredible; and, indeed, it is so, if we suppose them such men as we are.

† See Lipsius, *ubi supra*, Dialogue xiv.

‡ Page 77.

And, not to mention many other great battles of theirs, and the wonderful works they performed with their spade as well as their sword *, is it credible that they should have carried their arms over all the world then known, without losing men, as we do, by sickness and fatigue, and without having surgeons and hospitals following their armies, if they had been as weak of body, and as liable to disease as we are? And it is equally incredible that they should not have had, in their cities, hospitals and infirmaries, such as we have †.

It may be said that the Romans, by being better exercised, and otherwise living in a better manner, may have been better and stronger men than we; but it will not from thence follow that they were born stronger men than we.

To this I answer, that, if men, by living indolently and debauchedly, make themselves weak and diseased, must not their children be the worse for it? and, if the son shall add vices and diseases of his own to those of his father, and if this shall go on for centuries, from generation to generation, must not the race at last be exceedingly degenerate, if not totally extinguished? It is, therefore, impossible to lay out of our view, in this argument, institutions and

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manners,

* See, with respect to their spade-work, Lipsius, *ubi supra*, Dialogue xiii. where he mentions works of that kind of their's, which, I think, are as extraordinary as any thing else they did; and they may be said to have conquered the world by their spade, as well as by their sword.

† It may be some comfort to the modern reader, to be informed that, in later times, under the Constantinopolitan Emperors, and particularly in the reign of Justinian, they had not only Hospitals and Infirmaries, such as we have, as appears from their laws, but the poor, the diseased, and the mutilated, were to be seen, as with us, begging their bread in the streets and high ways, as we are told by a cotemporary historian, Agathius, (Lib. i. p. 149.). It appears, therefore, that the same causes, in all countries and in all ages, will produce the same effects.

manners, becauſe upon theſe it muſt depend whether a people ſhall improve or degenerate ; and, if we could ſuppoſe thoſe inſtitutions and manners perfectly good, ſuch as thoſe by which animals in the natural ſtate live, the animal would continue always the ſame, as we ſee wild animals do.

There is not a greater difference in any thing, betwixt antient and modern manners, than in the *cura corporis*, as the Latins called it ; and I am really ſurpriſed, when I conſider the many arts they invented to ſupply the wants of the natural life, and to prevent, as much as poſſible, the effects of an artificial and unnatural diet and manner of living. Amongſt us, there is but one art practiſed for that purpoſe, the art of phyſic ; but, among them, there was another art, belonging to the human body, practiſed as much according to rule, or more, as phyſic is among us ; I mean the gymnatic, which, beſides giving ſtrength and vigour, graceful and eaſy motion to the body *, contributed exceedingly, more, I believe, than any thing elſe, to prevent diſeaſes, which is better than curing them, though, for that purpoſe, it was likewiſe employed. Regular exerciſes, according to the rules of art, were not ſo neceſſary to the Romans, while they were farmers, and cultivated each his two or three acres with their own hands. This kept them in health, as Varro informs us †, and made their bodies firm and ſtrong. And the athletic exerciſes they practiſed upon holydays, which Virgil has
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* Horace, in his Ode to Mercury, ſays,

Mercuri facunde, Nepos Atlantis,

Qui feros cultus hominum recentum

Voce formaſti, catus, et decorae

More palaeſtræ. Lib. i. Ode 10.

† Quamdiu rura colentes Romani, et cultura foecundiſſimos agros habuerunt, et ipſi valetudine firmiores extiterunt. Lib. 2. *De Re Ruſtica*, in Prooemio.

ſo well deſcribed *, were an excellent preparation for war, and made them as good ſoldiers as huſbandmen. But, after they began to live more in the town, and wealth and luxury were introduced among them, then, as the ſame Varro tells us †, they built gymnaſiums in imitation of the Greeks, and became like them *learned athlets*; ſo as to vie with the Greeks in thoſe exerciſes, and even to excel them, if we may believe Horace; for he ſays,

—*luclamur Achivis doctius unctis.*

Lib. ii. Epift. 1.

So much, at leaſt, we are ſure of, from ſeveral paſſages in Horace, that to excel in exerciſes was very fashionable among the Romans, even in the luxurious age of Auguſtus Cæſar, when they were poſſeſſed of the wealth of all the world ‡. But, among the Greeks, long before the days of Auguſtus Cæſar, exerciſe had been an art or

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ſcience,

* Deſcribing the way the farmer paſſed his holydays, he ſays,

*Ipſe dies agitat feſtos; fuſuſque per herbam,
Ignis ubi in medio, et focii cratera coronant,
Te libans, Lenaee, vocat: Pecoriſque magiſtris
Velociſ jaculi certamina ponit in ulmo;
Corporaſque agreſti nudat prædura palæſtrâ.
Hanc olim veteres vitam coluere Sabini;
Hanc Remus et frater: Sic fortis Etruria crevit;
Scilicet et rerum facta eſt pulcherrima Roma.*

Georg. ii. Verſ. 527.

† *Lib. de Antiquis Nominibus.*

‡ *Lib. 1. Ode 8.—Lib. 3. Ode 7.—Lib. 2. Satyr. 1. in initio.—Lib. 1. Epift. 18.*

science, not practiced at random and occasionally, as among us, but at certain times and places appointed for that purpose, under the direction and inspection of masters, who, if they were eminent in their profession, were very much esteemed. To these exercises they joined anointing, bathing, friction, and even what we would call currying-combing. The order in which all this was done, and the whole process of the matter, may be seen in a very learned and curious book, written by Hieronymus Mercurialis, upon the Gymnastic Art, particularly in the Thirteenth Chapter of his Fourth Book *. By this regimen, joined with a proper diet, a man was put in order, as a horse among us ; and a man, in that order, was as readily distinguished among them, as a horse is among us by one of our skilful grooms. All gentlemen among the Greeks had their bodies in that order ; and hence it was that Socrates, in Xenophon†, said to one of his followers who neglected his exercises, *ὡς ιδιωτικῶς ἔχει το σῶμα*, that is, ‘ *How unlike a gentleman is the appearance of your Body ?*’

Now, I think, it is impossible, by the nature of things, but that men, who practiced the exercises that these antient Greeks and Romans did, must have been stronger men themselves than we, and consequently must have begot stronger children.

It is for these reasons, that I cannot reconcile the hypothesis, of men continuing always the same, with profane history : And still less can I reconcile it with sacred ; for how can we believe that men, such as we, lived eight or nine hundred years, or even as long as the Patriarchs lived after the Flood. If, therefore, I were to adopt this hypothesis, I must at the same time believe that the antient historians, both sacred and profane, have either been mistaken,

* Page 296.

† Memorabilia.

or have falsified willingly, for the same reason that Alexander is said to have buried armour of a monstrous size somewhere in India, in order to persuade posterity that the men before their time were giants.

Whether this be really the case, we shall examine in the next Chapter.

C H A P.

C H A P. IV.

Of the health of Men in the Natural State.—No Animal in that State liable to any Disease.—The Longevity of the Natural Man, proved from Abstract Reasoning and Final Causes ;—proved from Facts.—The History of the antient Patriarchs by Moses, a most exact Chronological History ;—compared with the Greek Chronology by Generations.—Agreement of Moses's History with my System.—Objection answered, that Moses's Years are only Months.—Other Authorities, besides Moses, of the long Lives of the first Men.—Of the Life of Moses himself.—Objection, from what King David says of the Lives of Men, answered.—Of the Longevity of the Greeks about the Time of the Trojan War.—The Length of the Reigns of the Lydian and Egyptian Kings.

IN the preceding Chapter, I think, I have shown most clearly, that the Man of Nature must be different from the civilized Man, in Body, as well as in Mind ; am now to show what he is in himself, without reference to Man in any other state, and particularly what he is with respect to health, longevity, size, and strength of Body : And, when we have considered him in these respects, we may then resume the comparison betwixt him and Man civilized, and in this way we shall perceive more clearly the difference.

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As to his health, it is impossible, by the nature of things, that an animal living upon so simple and natural a diet, and constantly in the air, should not be in the best habit of Body. And, indeed, it would be a grievous accusation of Nature, to charge her with setting down an Animal on this earth, that could not be in health, living in the only way in which he could live.—Further, I maintain, that Man, in this state, is liable to no disease; for no disease proceeds from God and Nature, who are the Authors of all good and no evil, but only from an unnatural life. Accordingly, the wild animals, I say, have no disease, and are not even affected, as I before observed*, by pestilential diseases, which destroy such numbers of civilized men. We ought, however, to except such wild animals as feed upon the food of Men, that is, herbs and fruits raised from dung; and it is to this diet that I ascribe those diseases that hunters observe among hares. Even the death of such an animal is not painful; for it is the death of Nature, and rather sleep than death: Whereas the death produced by intemperance and by an unnatural life, is commonly both painful and lingering. Men in that way are nine years a-killing, as Othello wished that Cassio should be.

Longevity is so far necessarily connected with health, that it is impossible a sickly animal can be long lived; but a healthy animal may not be long lived. There is nothing in which natural history is more defective, than in the knowledge of the length of the lives of wild animals; and, particularly, we are quite ignorant of the natural life of Man; and I hold it to be impossible to get certain information of it. For, if we knew the Oran Outan better than we do, it would not, I am persuaded, be in one, two, or three, generations of ours, that we should discover the length of his life; it would be the work of history and record to ascertain it.

Although

* Page 78.

Although it be not very safe to argue from general principles to any particular fact, yet I think we may go so far in abstract reasoning on this subject, as to say, that, as Man is so much superior, in other respects, to other animals, it is probable, at least, that he is not inferior to them in this, and that he lives at least as long as a deer or a crow. And, I think, we may say further, that, as the chief purpose for which Man is in this world, is the improvement of his intellectual part, which can only be by arts and sciences, it was necessary, for the invention of them, that Man should have a very long life; for, I will venture to assert, that, if Men, in former ages, had not lived much longer than they do now, and in much better health, very few arts and sciences would have been invented.

But we are not, in this case, reduced to the necessity of arguing only from a comparison with other animals, or from final causes; for, though we have no record, nor, I think, can have any, of the lives of Men perfectly in the Natural State, we have one most authentic record of the lives of Men not far removed from that state; so that we may conclude, with great certainty, that Men in that state would live as long at least, however much longer. The record I mean is no other than Moses's account of the lives and generations of the progenitors of the Jewish nation.

This record ought not only to be held in the highest veneration by every Christian, but it should be considered by every man, who desires to be learned in the history and philosophy of Man, as the most valuable historical monument extant, and much more antient than even the mythological history of the Greeks; for it goes beyond their first Deluge or Ogygian, as it was called, which I believe to have been the same with the Deluge, the memory of which, as Diodorus Siculus informs us *, was preserved among the Samothracians, and
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* Page 223. *Edit. Stephani*

by which the Euxine Sea was joined to the Hellespont, and a great part of the maritime country of Asia overflowed. Now, that period was utterly unknown to the Greeks, and therefore was called by them the *αδηλος*, or *obscure period*; for they divided the age of the world, as Varro informs us *, into three periods. The first began, as they supposed, with the human race, and came down to the first deluge. Of this period they knew nothing at all; neither how long it lasted, nor what happened in it. The second began with the first Deluge, and came down to the first Olympiad, and was called the *fabulous age*, because of it, as Varro says, many fabulous things were reported. What the length of this period was, he says, was not certainly known; but it was believed to extend to 1600 years. The third period was from the first Olympiad to the time when Varro wrote, and was called the *historical period*, because the transactions in it were recorded in true history: And, as to the duration of it, he tells us there was only a difference among authors of six or seven years. Now, the first period, utterly unknown to the Greeks, is filled up by the history of Moses, which is as exact an account of the genealogies and of the duration of the lives of the progenitors of the Jewish nation, as ever was given, or can be given, of Men living in any period of history.

The Greeks, before the beginning of the Olympiads, computed by generations, as Moses does; but then, what was the length of a generation, was mere guess-work. They commonly allowed thirty years to a generation; but some thinking that too little, (as, indeed, I believe it was much too little in those antient times), gave a hundred years to three generations †. Instead of those conjectures, Moses

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tells

* Cenforinus, *de die natali*, cap. 21.

† I was informed by Monsieur Roubaud, a French missionary among the Albino-quois, (a nation of North America), whom I have mentioned in the First Volume
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tells us exactly when a Man was begotten, and when he begot the next Man, by whose generation the time is counted, and so on; and this interval of time, betwixt being begotten and begetting, is what the Greeks called a *generation*, but without defining it, otherwise than, as I have said, by mere conjecture. In this way, Moses, at the same time that he has given us the genealogy of the ancestors of his nation, has given us a most exact chronology: And it is not without reason that Josephus, on this account, has commended him so much *.

Those men were not, at least all of them, in the perfect state of Nature; for they had the use of speech, and, I believe, of letters too: At least, if I were to judge of Moses, as I would do of an historian not inspired, I should suppose that he wrote from written records †, otherwise I could not believe him; because no tradition could preserve so exactly the generations and lives of so many men, for so long a course of time. But those Patriarchs, though they were not just in a State of Nature, were very near to it, and living in as fine a climate, I believe, as any in the world, so that the length of their lives does not appear to me very wonderful: And, if it could be discovered how long the Oran Outan lives, I should not be surpris'd to find that he lives longer, though, I believe, in a climate not so good.

As

of the Origin and Progress of Language, p. 228. Second Edition, and from whom I have got more information concerning the natives of North America, than from any other, dead or living, that the Albinoquois compute by generations, and allow 60 years to a generation, which, I am persuaded, comes much nearer to the truth, among a people in a state very like that of the antient Greeks, than 30 to 1, or 100 to 3.

* Jewish Antiquities Lib. i. cap. 3.

† Josephus, I find, supposes that he did write from such records, and that the Patriarchs, even before the Flood, had the use of Letters; Ibid Cap. 3. Sect. 3.

As there were but nine generations betwixt Adam and Noah, and during that time, as it does not appear that there was any alteration in the manner of living of those ancestors of the Jewish nation, it is not to be wondered that there was no great difference in the length of their lives : But, after the Flood, the decrease goes on very fast ; so that Abraham, who was only the tenth from Noah, lived no more than one hundred and seventy-five years. And this agrees perfectly with my philosophy ; for Men after the Flood ate flesh, and drank wine even to drunkenness ; neither of which they did before the Flood. And, perhaps, so great a convulsion in Nature, as the Flood, may have produced a great change in the air, the soil, and the vegetables, not favourable to the life of Man. The decrease, however, went on, as every thing in Nature does, by degrees. Abraham, as I have said, lived one hundred and seventy-five years ; and, when he was one hundred and his wife Sarah ninety, he begot Isaac ; and after that, when he was about one hundred and forty, he begot six sons by Keturah. His son Isaac lived to the age of one hundred and eighty ; and Isaac's son Jacob, when he went down to Egypt with his family, was one hundred and thirty : But then he told Pharaoh, ‘ Few and evil have the days of the years of my ‘ life been, and have not attained unto the days of the years of the ‘ life of my fathers, in the days of their pilgrimage *.’ He lived, however, to the age of one hundred and forty-seven.

Those, I know, who insist to make all men after their own image, and to bring down antient times to the level of modern, will give no credit to Moses ; or, if they do not choose flatly to give him the lie, they will endeavour to explain away what he says, by telling us that Moses's years are months. According to this account, Methusalem did not live so long as many men among us do, and not near so long as Abraham, Isaac, or Jacob did, in much later times ; about the length of whose lives there can be no dispute, if

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* Genesis, Chap. 47. Verse 9.

we give any faith at all to the History of Moses. But, besides, who can believe that Moses, *who was learned in all the learning of the Egyptians*, did not learn there to measure time by the course of the Sun, as well as by that of the Moon ; or, if we could doubt of that, is it not evident, from the account which Moses gives of the Flood, that he had learned, at least, to distinguish between months and years ? In the latter part of his narrative, when he comes down to Abraham and his family, nobody supposes that his years are months. Now, who can believe that, in one part of his history, he computes by one year, and in another by a different year : Besides, such a supposition would overturn our whole system of chronology, which is founded upon a computation by these long lives and generations, supposing the years to be solar years.

But these gentlemen should know that the long life of men in antient times does not rest solely upon the authority of Moses ; for Josephus names several authors, both Greek and Barbarian, who speak of Men living a thousand years* ; which authors are now lost. But there is one still extant, of great antiquity, I mean Hesiod, who tells us, that, even in his *Second Age*, or *Silver Age*, as he calls it † ; Men were a hundred years in the nursery ; which agrees perfectly with what Moses says, of their beginning to propagate at that age : And there is an antient Greek historian, Ephorus, who was a very diligent inquirer into antient times, and who relates, that the Arcadians, a most antient people of Greece, had preserved among them the memory, that some of their antient kings had lived 300 years ‡.

But, suppose we should reject the authority of Moses, with respect to the antedeluvian Patriarchs, what shall we say of those that
lived

* Joseph. Hist. Lib. i. cap. 3. *in fine*.

† Operae et Dies, Vers. 130

Pliny, Lib. vii. cap. 48.

lived after the flood? Must we bring them likewise down to the standard of modern times? What shall we say of the account Moses gives of himself? That, at the age of eighty, he undertook and accomplished perhaps the greatest work that ever was performed by mortal man,—the delivering his nation from subjection to the greatest King then in the world, bringing them out of his country in spite of him, and giving them a religion, laws, and a constitution. Is there any man of this generation at that age capable of such an exertion, either of Body or Mind? But Moses, after he had done all this, died at the age of 120, perfectly entire even in body.

And thus, I think, I have shown, that, suppose any of my readers should be so unfortunate as to agree with Mr David Hume, that Moses's account of the first ages of the world, as well as the rest of the Bible History, is a mere fiction, yet it is not a fiction which a Man may not believe, without deserving the censure of *having the whole Principles of his understanding subverted*, but, on the contrary, as probable a fiction as the agreement of other histories of those ages, and the philosophy of Man, can make it.

As to what David says of the life of Man, in his time, being reduced to seventy years, it only serves to confirm my hypothesis, of the lives of Men being shortened in proportion as they are removed from the natural state. Israel, in the time of David, was not a young nation; for, if we reckon from their going down to Egypt with their father Jacob, they were then near to 700 years old, which could not fail, according to my philosophy, to make a great alteration as to the length of their lives.

With respect to the Greeks, we have, as I have observed, no such antient record of their nation as we have of the Jewish. We know nothing, therefore, of the lives of their Patriarchs, nor any thing

thing certain about their history in antient times, except from Homer, who mentions only occasionally any thing preceding the Trojan war. He says nothing of the number of years that any of them had lived, but only speaks of some of them as being old and others young. Nestor was the oldest of them, who, he says, was then living with the third generation. This Ovid understands to mean, that he was in his third century; and I don't know any reason or authority that I can oppose to his testimony. And there is a Lady, of whom Homer makes frequent and honourable mention, both in the Iliad and Odyssæy, I mean Helen, who was eighty years of age, according to Eusebius's chronology, (which is the chronology generally received, and to which I see no good objection), when she was carried away by Paris; and, about twenty years after that, she entertained Telemachus in Sparta, and was still *a Goddess among women* *.

From what Homer says of Nestor's age, it is evident that the Greeks then, as well as in after times, computed by generations. A generation, according to Hesiod, among the antient Greeks, as well as among the antient Hebrews, was a hundred years; and it is upon this hypothesis, as I believe, that Ovid supposes Nestor to have been in his third century, at the time of the Trojan war. But, if I should admit them to be something less, I cannot persuade myself but that they were much longer than in after times. And I am convinced that Herodotus errs, in computing the antient generations at no more than three to the hundred years. And it may be observed, that his computation of the years of generations agrees very ill with the account he gives us of the reigns of particular kings both of Lydia and Egypt, which we cannot suppose to be

* ——— Δία γυναικων.

Odyss. Δ. Vers. 305.

be from conjecture, like his account by generations, but from written evidence †. Now, though reigns of kings be different from generations, there must be some proportion betwixt them; for, if Kings reign long, they must live long, especially in those ancient times, when the government was not trusted to kings under age; and kings commonly do not live longer than other men, but generally a shorter time. Now, there is always a proportion

† Herodotus mentions the length of the reigns of only three of the Lydian Kings, Ardys, Sadyattes, and Alyattes. One of these, viz. Sadyattes, reigned a short time, no more than twelve years, (Lib. i. Cap. 16.); but Ardys reigned forty-nine years, (Ibid.); and Alyattes no less than fifty-seven years. Of the Egyptian Kings he mentions only the length of the reigns of four, Cheops, Chephren, Mycerinus, and Anyfis. The first of these reigned fifty years, (Lib. ii. Cap. 127.). His successor, Chephren, and who, it is to be observed, was his brother, and so must have been old before he succeeded, reigned 56 years: Mycerinus, the third I named, was condemned by the Oracle to die in six years, and accordingly reigned no longer, (Ibid. Cap. 133.). The last, Anyfis, was dethroned by the King of Ethiopia, and fled to the Marshes, where he lived fifty years, during all which time the Ethiopian reigned: After which, he having left the country, Anyfis returned to his kingdom; but how long after that he reigned, or how long before he was expelled, Herodotus does not say; (Ibid. cap. 137.) But here we have five Kings, reckoning the Ethiopian King as one, two of whom reigned each fifty years, one of them more than fifty, though we cannot tell how much more, and another of them fifty-six years, and only one of them reigned no more than six years. I am therefore disposed to believe that, when Herodotus computes the generations of the Egyptian Kings to be no more than three to the hundred years, (Lib. ii. Cap. 142.) he reckons according to the length of generations in his own time, proceeding upon the supposition that men were no longer-lived in those ages than they were in his; an opinion that, I believe, has been very general in all ages. I will only add on this subject, that Herodotus does not appear to have formed any fixed opinion about the length of a generation; for, in computing the generations of Lydian Kings, he assigns somewhat less than twenty-three years to a generation, (Lib. i. Cap. 7.)

portion betwixt the length of mens lives, and their age of puberty - or time of begetting children.

And so much for the health and longevity of the antient world. In the next chapter, I will inquire concerning their size and strength.

C H A P.

C H A P. V.

Of the Size of Men.—Prodigious Growths of Men, in different Ages, and different Nations.—The Question at present concerning the Ordinary Size of Men in different Ages of the World.—Great Variety in the Size of Men—This Variety not owing to Soil or Climate.—The Diminution of the Size of Men in the same Country and Climate proved, first from Facts, then from the Reason of the Thing.—The Author's Way of judging of Facts—Of the Size of the Oran Outan.—Of the Patagonians.—No Reason to disbelieve Byron's Account of them.—His Account supported by other Evidences.—Of the Size of the antient Egyptians and Indians.—Of the Size of the Greeks as described by Homer.—Of the Romans, and their inferiority in Size to the barbarous Nations.—The Descendants of those Nations not superior to us in Size.—Degeneracy of the Romans in Size, acknowledged by one of their own Authors.—Memorials yet to be seen of the degeneracy of the Size of Men;—Stonehenge;—Body of a Man found near it fourteen Feet ten Inches long.—The Decline still going on.—This proved by Facts.—Record of the Degeneracy of the Human Stature.—The Decline, in this respect, not confined to Britain.—Some Remains yet preserved in Europe of the antient Stature of Men.—Visible Marks of the Degeneracy of the Species to be daily seen.—The Time of Gestation of the Females shortened in Modern Times, an evident Proof of the Degeneracy;—also the Women not having Milk for their Children.

THAT there have been Men of extraordinary size, in different countries, and in different ages of the world, is a fact that, I think, cannot be disputed. In Scripture, we read of the sons of Anak and of Goliath of Gath; and Homer mentions two men of most extraordinary

ordinary stature, that were in Greece*; and there is a modern writer, Calmet, *Dictionnaire Historique de la Bible*, who, under the article of *Giants*, relates, upon the credit of a French consul at Theſſalonica and ſeveral other eye-witneſſes, that the body of a man was diſcovered there, of greater ſize ſtill than Homer's giants†. In ſhort, hiſtory, both ſacred and profane, and the traditions of almoſt every country, are full of ſtories of giants. But the queſtion at preſent is not concerning men of ſuch monſtrous ſize, that they may be accounted prodigies of nature; though that ſuch men did exiſt, I cannot doubt; and, indeed, the Man that is to be ſeen at preſent at London, commonly called the Iriſh Giant, who is eight feet two inches, and ſaid to be ſtill growing, ſhould convince us, that if, in the preſent decline of the human race among us, ſuch men do

ariſe,

* Odyſſ. A. Verſ. 305. et ſeq. Their names were Otus and Ephialtes; and their ſtature, when they were no more than nine years of age, was nine fathoms, and their breadth nine cubits. He ſpeaks alſo of the Cyclops as men of prodigious ſtature; though he does not mention particularly their height. One thing is certain, that, in Sicily, where it is ſuppoſed thoſe Cyclops dwelt, a great number of bones have been found, of prodigious ſize; Cluverius's *Geography*, Book 3. Chap. 42.; Riccii *Differtationes Homericae*, *Differt.* 18. Vol. i. p. 186.

† This Giant was diſcovered in January 1701, by an accident which Calmet relates. He was ninety-fix French feet of height; and the author mentions many other particulars concerning the capacity of his ſkull, the weight of his teeth, and the dimenſions of his fingers, contained in a *proceſſus verbal*, atteſted by the French conſul, and another perſon named by Calmet. The fact is alſo atteſted by ſeveral other Frenchmen whom he mentions, and who ſent a particular account of it to their friends at Paris. The ſtory is alſo mentioned by Mr Maillet, in his *Telliamede*, (page 256. of the Engliſh tranſlation), where he ſays that ſome of the bones of this Giant were ſent to Paris, where they are yet to be ſeen in the French King's Library. And he adds, that one of the men, who was employed by the French conſul to raiſe the bones of this Giant, was ſtill alive when he paſſed at Salonica, (the modern name for Theſſalonica), and recounted to him the particulars here related. There are ſeveral other ſtories told by Calmet, under this article of *Giants*, but none of them ſo well atteſted as this ſtory, which is ſo atteſted, that I think it is impoſſible to doubt of it, unleſs we are poſſeſſed of a philoſophy, that can ſet bounds to the Works of God with reſpect to the human ſize, and can demonſtrate that it is impoſſible, by the nature of things, that ſuch a man ever ſhould have exiſted.

arise, it is highly probable that, when Nature was young and vigorous, greater prodigies still, of that kind, were to be seen : But the question at present, I say, is not concerning such men, but concerning the ordinary size of Men in the State of Nature and in the First Ages of Society.

Before we enter upon this inquiry, it is proper to observe, that, as in other Animals, so in Man, there is a great variety of size ; and, indeed, it would be wonderful, if, in the most various of all Animals, there were not the common variety of great and small ; and, not only is there this variety among individuals of the same nation, but the difference is great in different nations. Our philosophers, who would account for every thing from material causes, ascribe this difference in Nature to climate, soil, air, or I don't know what other material thing. But, how comes it that, in the cold climate of Lapland, the Men are very small, not exceeding five feet, while, in the colder climate still of Patagonia, the largest men now known are to be found ? And how shall we account for the great difference of Men and families of Men, both in Body and Mind, to be found in the same country, where the climate, the soil, the air, the water, the diet, and whole manner of life, are the same ? But we are not inquiring about this at present ; the question now is, Whether, in the same country, and among the same race of Men, the people are larger and stronger in the natural state, or in the first ages of society, than they are in later times ? And, first, I will show that they were so in fact ; and then I will endeavour to prove, from the nature of things, that it must have been so.

Before I enter upon the facts, I think it is proper to inform the reader, that I do not judge of facts as many of our modern critics and historiographers, particularly those of the French nation, do. In the first place, I do not think it below me to give the reader the satisfaction of knowing my authorities for the facts I advance. In

the second place, I take those facts as I find them, and, if the author is credible, I believe them, without supposing them to be exaggerated; because, if I were to suppose them exaggerated, I could not tell how much; and perhaps they may be diminished, and then I must add to them. In short, to go to work in that way with facts, is truly to make them. This is commonly done upon the credit of some philosophical system the author has formed, to which he wants to adjust the facts. But I choose rather to deduce my philosophy from facts, than facts from my philosophy. If, indeed, I were able to form a system of philosophy perfectly certain, concerning the size of Men or any other subject of natural knowledge, I should be very ready, upon the credit of such a system, to reject all facts contrary to it, however attested, as absolutely impossible to be true; and I should be in the case of a mathematician, who would give no credit to a traveller or historian affirming that he had been in a certain country, where the diagonal of a square was commensurable to the side. It should appear that Buffon had formed some system of philosophy upon the subject of the stature of Men, which he thinks as certain, and therefore he has limited the power of God and Nature to five French feet for the ordinary stature of a Man, with the variation only of a foot below or a foot above. Such, he says, is the stature of Man that goes to the race; and what is either below or above it, is only an accidental variety of the individual, not a variety of the species*. And, upon the credit of this hypothesis, he rejects, as mere fictions, all the accounts we have of races of men, that are, or have been, of greater size. But, as I have no philosophy by which I can form systems of this kind *a priori*, I am reduced to the necessity of deducing, as I have said, my philosophy from facts; and my way of judging of facts is shortly this: First, I inquire whether the author who reports them had access to know them, and to be well informed about them? 2dly, Whether

* Buffon, Nat. Hist. Vol. iii. p. 509.

ther he be a credible author, or whether his veracity may not be justly suspected? 3dly, Whether he be not contradicted by other authors more credible than he? and, lastly, Whether what he reports be not, by the nature of things, impossible to be true? And if, upon this examination, I find that he had access to know what he relates;—that he is a credible author;—that he is not contradicted by any other author, or any so credible;—and, lastly, that what he relates is neither impossible, nor highly improbable; I believe what he says, as he has delivered it, without adding to it or taking from it.

By this way of reasoning, I have brought myself to a perfect conviction, that the Oran Outan is a human creature, as much as any of us; whereas Buffon, having formed a system from theory merely, not only without the assistance of any facts, but contrary to facts well attested *, That the children of the most savage nations

* Keoping, a Swedish traveller in the East Indies, recommended to me by Linnaeus for his veracity and accuracy, (See *Origin and Progress of Language*, Vol. i. page 257. Second Edition), relates that, in the island of Ceylon, he saw a child of an Oran Outan by a woman. This child, who was all covered with hair, as soon as he was born run away, and clomb, first upon a pole, next upon a door, and then upon an high tree, (Chap. 66.). Indeed, one should think that it needed no facts to prove that the child of a savage, so much stronger and more agile, healthier, and longer-lived, than we, should be very different, in point of strength and agility from our children.—If the reader be convinced of this fact related by Keoping, (and how can we doubt of what a man of veracity says he saw?) we must believe that the Oran Outan propagates **with** women, and that he produces by them; so that at least he is as near to us as the horse is to the ass. One thing is certain of him, being attested by almost all the travellers, that mention him, that he has a very great inclination to copulate with the black women, and frequently ravishes them; See *Origin and Progress of Language*, Vol. i. Page 285. of the Second Edition.

nations are as feeble as our children ;—That, therefore, they require to be nourished and attended by the mother for three years, in which time, the mother and child, betwixt them, would, as he thinks, form a language, he from thence concludes, that the Oran Outan not having the use of speech is not a Man, and that a state of pure Nature, as he calls it, is a mere ideal state, which never had any real existence * ;—Bontius, therefore, the Batavian physician, and other learned authors, who have told those stories of the Oran Outan, (which I believe, and from which, I think, the conclusion is certain, that he is a Man) were prejudiced ; they have exaggerated ; and when their exaggerations are retrenched, there remains nothing but an ape. But the prejudices of those authors, or what should tempt them to exaggerate, to prove that the Oran Outan is a Man, I cannot discover : For not one of them has asserted that the Oran Outan is a Man ; but, on the contrary, they seem to be of Buffon's opinion, that Speech is essential to Man ; and, particularly, Bontius has said of them, that they wanted nothing to make them Men but Speech †. And the Bristol merchant, whose account of this Animal I have inserted at large in the Origin and Progress of Language ‡, and which is the fullest and most distinct that we find any where, is so far from asserting that he is a Man, that he expressly denies it, and says that he is of a species betwixt a Man and a Monkey. But it is not upon the opinion of these authors that I ground my belief of his humanity, but upon the facts which they relate ; and which seemed so strong to Buffon himself, that, if he did not believe that they were exaggerated, and the relaters of them were prejudiced, he would, I think, be of my opinion.

But,

* Buffon. Nat. Hist. Vol. xiv. p. 35. 36.

† See his Words quoted in Vol. i. of the Origin and Progress of Language, page 273. of the second edition.

‡ Ibid. p. 281.

But, suppose all those authors to be prejudiced, and to have exaggerated ever so much, yet Buffon was certainly himself not prejudiced, nor did not exaggerate in the accounts he has given of the Oran Outan that he saw *. Now, I think it is impossible, as I have said †, to believe that an Animal, who behaved in the way that Buffon has described, with so much understanding, docility, gentleness of nature, and who, like a dumb man, had the capacity of speech, having all the organs of pronunciation, though not the actual use of it, was not a Man, but an Animal of a species that never before was heard of, that is, an Animal betwixt a Monkey and a Man. It would be but going one step further, if we should suppose, as Linnaeus does, that an animal might think, reason, form opinions, and speak, and yet not be a Man, at least not such as we are ‡.

If the Oran Outan is admitted to be a Man, it will not be denied that he is more the Man of Nature than any that have hitherto been discovered living together in numbers and in any kind of society; and, therefore, from his size, we may judge of the size of Men in the perfect natural state. Now, the *Pongo*, or great one, is undoubtedly much above the standard which Buffon has fixed for the human size. Even the least of the three kinds of them, called by the Bristol merchant the *Chimpenza* §, is, when erected, near to that stature; and the second kind, as described by the merchant, must be above it. But the great Oran Outan, by the accounts of all travellers, must

* Vol. xiv. page 53.

† Page 68.

‡ Vol. i. of the Origin and Progress of Language, pages 305. 307. 308. of the second edition.

§ Ibid. p. 284. of the second edition.

muſt be an animal betwixt eight and nine feet of height when he is come to maturity *, and ſtrong in proportion ; ſo ſtrong, and, at the ſame time, we may ſuppoſe, ſo nimble, that it would be ſtill more difficult to catch him, than the ſavage in the Pyrennees above mentioned †. And this, no doubt, is the reaſon why none of them of full growth have been brought to Europe, but only ſuch as are very young, not above *one* or *two* years old. But theſe were ſuch Animals as ſhowed what the Animal muſt be when come to its full growth ; for what Buffon relates of the actions of the one he ſaw, which he ſays was only about two years old, would be quite incredible of one of our children at that age.

The difference of ſize among the Oran Outans proves the truth of what I have advanced above, that, in the ſame climate and country, there are Animals of the ſame ſpecies of very different ſizes. In this ſame country of Africa, there were certainly Pigmies of old. The Pigmies, which Homer mentions, I am perſuaded, were of that country : And my reaſon for thinking ſo is the authority of Ariſtotle, who, in his hiſtory of Animals ‡, relates, upon information which he thought might be depended upon, that there were Pigmies in Africa in his time. And I do not believe that there ever was a man better informed as to facts of Natural Hiſtory than he was ; for he had all the information that his pupil, Alexander, the conqueror of the world, could procure for him. But further, there is one *Nonnoſus*, who was ſent ambaffador to Ethiopia, by the Emperor Juſtinian, and who ſays that he ſaw, himſelf, in his travels to that country, very little men, whom he deſcribes particularly §. I have
been

* Ibid. page 285. where I mention the body of one that was meaſured, and was about eight feet.

† Page 46.

‡ Lib. viii. Cap. 12.

§ See *Phocii Bibliotheca*, Edit. 3. p. m. 7.

been informed, that a French traveller has lately discovered in Africa a nation of Pigmies ; and it is no doubt from some such information that Linnæus has related what he tells us of his *Troglodyte*, or *homo nocturnus*, as he calls him, who walks upright, thinks and speaks, but is not above half our size *.

The Patagonians are not so much in the state of Nature as the Oran Outans ; but they are not far removed from it ; for, though they have the use of speech, of horses, and of some clothing of skins, they are a vagrant nation, without house or home † ; and they feed very much upon raw vegetables, as I was told by a sailor, who was aboard Mr Byron's ship, and having occasion to be several times ashore upon watering parties, saw them frequently at their meals. About their size there have been great disputes. Those philosophers, who would make our height to be the standard of God and Nature for the size of Men, were all in arms against Mr Byron, who made the Patagonians so much taller : And I have been told, that he was so much run down on that account, as to mince the matter a good deal, and to retract not a little of the great size that he had given them at first upon his arrival in England. But that he did then say that they were betwixt eight and nine feet, is certain ; for I have by me an account taken down in writing, from a gentleman, who had it from the mouth of Mr Byron, which contains many particulars concerning them, and that among others. And not only did Mr Byron say so, upon whose testimony alone I could have believed the fact, but all his officers gave the same account of their stature : And there is to be seen in the Transactions of the Royal Society, for the year 1767, a letter from Mr Charles Clarke, an

VOL. III. S officer

* Origin and Progress of Language, Vol. i. p. 304. 305. second edition.

† Harris's Collection of Voyages, Vol. i. p. 8.

officer aboard Mr Byron's ship, to Dr Maty, secretary to the Society, of date November 3. 1766, very soon after Mr Byron's arrival in England, wherein he affirms that some of them were certainly nine feet, if not more, and hardly a man of them less than eight feet, and the women above seven. He was one of the party that landed with Mr Byron; and, as they were with him near two hours at noon-day, he could not be mistaken in the account he gives of them, and, particularly, in respect to their stature; for, though a man, who stands close to another, will guess very nearly as to his size by comparing it with his own, the matter, in this case, was not left to that conjecture; for he tells us, 'That Mr Byron, who is very near six feet, could but just reach to the top of one of their heads, which he attempted on tiptoes; and there were several taller men than him, on whom the experiment was tried.' And he adds, 'They are prodigious stout, and as well and proportionally made as ever I saw people in my life *.'

To these authorities I may add, what the sailor above mentioned told me. When I asked him what the size of these Patagonians were, he answered very ingenuously, that he could not certainly tell, for he did not measure them: 'But,' says he, 'when I laid myself along side of one of them, I looked like a child.'

There is another testimony with which a French author furnishes me, and which makes the stature of these Patagonians, at least some of them, greater than Mr Byron, his officers and sailors, made it: It is the testimony of M. de Guyot, Captain of a French ship trading to the South-Sea, and who, for any thing I know, may be yet alive. He brought from the coast of Patagonia a skeleton of one of these
great

* Vol. 57. p 78.

great men, which measured betwixt twelve and thirteen feet. This skeleton he was bringing to Europe ; but, happening to be caught in a great storm, and having aboard a Spanish bishop, (the Archbishop of Lima), who was of opinion that the storm was caused by the bones of this Pagan which they had on board, and having persuaded the crew that this was the case, the Captain was obliged to throw the skeleton over board. The bishop died soon after, and was thrown over board in his turn. I could have wished that he had been thrown over board sooner, and then the bones of the Patagonian would have arrived safe in France ; though, I am persuaded, they would not have made Buffon alter his opinion, but he would have still maintained that it was only an accidental variety of the individual, not any difference of the race *.

But, suppose I should agree with him in rejecting all these relations of modern travellers upon the credit of his philosophy, what shall we say of the accounts of more antient travellers agreeing so perfectly with them ? Particularly, how can I disbelieve what the author of Magellan's Voyage has told us, of his passing five months with them at Port St Julian, in Patagonia ? The author of this voyage is one *Pigafetta* †, a companion of Magellan in the voyage ;

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for

* This fact is related by Dom Pernety, Abbe of the Abbey of Burgel, who has written a dissertation upon America and the Americans, by way of Answer to the *Recherches Philosophiques sur les Americains*, the author of which maintains that the natives of America are a degenerate race of men, both in Mind and Body. What the author relates, page 119 he says he had from M. Guyot himself ; and he says farther, (page 117.) that this M. Guyot, and another French Captain of a ship he names M. de la Gyraudais, brought from Patagonia to Paris the arms and drefs of a Patagonian, which they gave in a present to M. Derboun, Fermier General des Postes de France, in whose possession the author says he saw them.

† Harris's Collect. Vol. i. p. 13.

for Magellan himself was killed before they returned to Europe. The Patagonians came frequently aboard their ship; and they had so much intercourse with them, that they learned a good deal of their language, and of their customs and manners. As to their size, he says, ‘ Their bulk and stature was such, as would easily allow ‘ them the character of giants. The head of one of our middle sized men reached but to their waists; and they were proportionably ‘ big *.’ And, in another place he says, ‘ These folks are very ‘ strong: When we made the attempt to take some of them prisoners, ‘ one alone very near tired the utmost force of nine of our men that ‘ were employed to master him; and, though they had him down, ‘ and bound his hands tightly, yet he freed himself from his ‘ bonds, and got loose in spite of all their attempts to hold him †.’

Besides this authority from Magellan, Hawkesworth, in his Preface to Captain Cook’s First Voyage, has quoted many other relations from travellers before this century, which, joined with the testimonies I have already mentioned, make such a concurrence of evidence, as appears to me irresistible: Nor, indeed, do I conceive how any fact of Natural History, in a remote country, can be better proved, than by the concurring testimony of so many men who have been in the country at different times, and were eyewitnesses of what they relate: And, indeed, the testimony of those more antient travellers, singly, is to me so satisfactory, that, upon their evidence alone I should have believed in this race of tall men, although no traveller had seen them, and that they were not now to be found. The sons of Anak, and the family of Goliath, we believe, did once exist, though their race has been long ago extinct.

Setting

* Ibid. p. 7. This, the reader will observe, agrees perfectly with the account of their size I had from the sailor above mentioned.

† Ibid. p. 8.

Setting aside Buffon's philosophy, to which, I believe, few of my readers will give much credit, there is an argument, in point of fact, which I have heard much insisted on, against the existence of these tall Patagonians, namely, that Capt. Wallis, who came after Mr Byron, saw no men upon that coast that were much above our size.

But to this the answer is obvious, namely, that the Patagonians are a vagrant tribe, who are only sometimes upon that coast; and the fact most certainly is, that there are men of very different sizes to be seen in that part of the world. The negative testimony, therefore, of those travellers who did not see them, proves nothing against the positive evidence of those who did.

I have heard it also said, that those, whom Capt. Wallis saw, had the same trinkets that Mr Byron had given to those he saw; therefore they must be presumed to be the same men. But this consequence I deny: For, in the first place, I don't think it possible that Capt. Wallis's people could be sure they were the same individual trinkets, though they might know they were of the same kind; 2dly, Suppose them to be the very same, they might have come, in the way of commerce or otherwise, to the Patagonians that Capt. Wallis saw.

And thus, I think, I have proved, by all the evidence of which a fact of Natural History, in a remote country, is capable, that there exists in South America a nation of men and women, much above our size, and not single individuals only, as Buffon supposes.

It may seem extraordinary, that, in this great continent of America, which may be said to be a new world in more than one respect, (for it is not only newly discovered, compared with the Continents of Europe, Asia, and Africa, but I am persuaded that it is a country newly peopled, compared with the countries on this side of
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the globe, at least that the nations there are not near so old, and, consequently, civility and arts not so far advanced among them), these Patagonians should be the only men of great size there found : And I should think it was indeed extraordinary if that were the fact ; but I believe it is not. Christopher D'Acugna, a Spanish Jesuit, in his voyage down the River Amazons, speaks of men of the height of twelve feet in that part of South America, and also of men no bigger than children ; and likewise Father Hennipen, in his travels in North America, says that there are men of extraordinary size and strength about the heads of the Mississippi : At the same time, he tells us, that there are likewise Pigmies there to be found, which still farther confirms what I have said above, of the great variety of size in our species even in the same climate and country. As to men of extraordinary size in that country, M. Maillet, in his *Telliamede* *, tells a story of a nation of men ten or twelve feet high, lately discovered in North America by some Savages who travelled very far to the west, and were ten months upon their journey. One of these Giants they killed ; and, by way of trophy, brought home his head. The story is related by M. Maillet, with many particulars, which he said were attested to him by a French officer, one M. Pachot, who saw the head, which was at least as large as three ordinary heads. I know this author's credit is suspected by many, but for no reason that I know, except that he relates many things that are not to be seen in Europe, and such as must appear extraordinary to a man who has not enlarged notions of the variety of Nature. His account of Egypt is believed by every body to be true ; and, indeed, I think it is the best account that we have of the state of that country in modern times. And, if he did not lie with respect to Egypt, I know no reason why we should suspect him of lying in what he relates of other parts of the world. He may have been misinformed ; but
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* Page 457.

he does justice to the reader, in giving his authorities for what he relates *.

But leaving America, of whose antient history we know nothing, I come to speak of nations whose history we know, and can therefore compare their antient state with their later ; the design of this chapter being to show that the bodies of men, in the Natural State or in the early ages of society, were much bigger and stronger than in later times.

I will begin with the most antient nation in the world, so far as we know, I mean the Egyptian. That there were men, in antient times, of that nation, of very great size, is attested by Pausanias †, who saw the bones of them ; (for, at the time he wrote, they were, I suppose, no bigger than we) ; and we have the testimony to the same purpose, of two modern travellers, Mons. Maillet, the French consul at Grand Cairo before mentioned, and Dr Pococke : And what they say is the more to be attended to, as it shows that, even in the antient ages of Egypt, there was that decline of stature going on, which, I say, was always going on, in every nation, from the time it became a nation. The Kings of Thebes, as is well known, were the antient kings of Egypt, who reigned before the Pyramids or the city of Memphis were built, and the most antient of them, I believe, before the ground, upon which the Pyramids and Memphis stood, was created. In the burial-place of these Theban Kings, Dr Pococke saw a tomb of one of them cut out

* Calmet, author of the French Dictionary above quoted, under the word *Geants*, relates that there are traditions preserved in Peru, Brasil, and Mexico, of a race of Giants once existing in those countries.

† Lib. i. Cap. 35. He says the bodies he saw in Egypt were as big as those of the northern nations, who, we know, were at that time very much bigger than the Greeks and Romans.

out of one stone of red granite, eleven feet eight inches long, six feet broad, and seven feet nine inches high, with the figure of the King upon the lid of it, in Mezo Relievo *. But the Sarcophagus of the Memphian King, which Maillet saw in the Great Pyramid, and who, it is likely, was Cheops, the builder of that Pyramid, was only betwixt seven and eight French feet in length †. This antient size of the Egyptians we cannot compare with the modern, because the Egyptian nation, though once the most numerous in the world, for the track of ground it possessed, does no longer exist ; for the race of those black, woolly haired men, such as we know the antient Egyptians were, is not now to be found in Egypt, and, I believe, is utterly extinguished ‡.

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* Pococke's Travels in Egypt, p. 98.

† Description de l'Egypt, p. 241.

‡ There are many pretending to be Scholars, who do not know that the antient Egyptians were Negroes : But that they were so is evident from Herodotus, who might be mistaken as to other things which he relates of Egypt, but could not be mistaken with respect to their colour and their hair. As he wrote only for the information of his countrymen, the Greeks, he did not tell them directly what they all knew, that the Egyptians were black men, with woolly hair : But he mentions it indirectly and occasionally, as a thing perfectly well known ; for, among other proofs, that he has given us, of the Colchians being originally Egyptians, he has told us, that, like the Egyptians, they were black men with woolly hair, (Lib. ii. Cap. 104.) Of this race of men were also the Ethiopians of Africa, from whom the Ethiopians of Asia were distinguished, not by their colour, (for they were as black as the Ethiopians of Africa), but by their hair ; for Herodotus tells us, that the Ethiopians of Asia were *ῥαυτεριχες*, that is, with *straight* or *lank hair* ; whereas, the Ethiopians of Africa were *οἰστριχες*, or *woolly haired* ; (Lib. vii. cap. 70.) This shows that Herodotus knew perfectly the distinction betwixt a Negro and an East Indian Black. If the reader should desire any other proof of the antient Egyptians being black men, Ammianus Marcellinus furnishes one, who tells us that, even in his time, when the antient race was no doubt much worn out, and what remained

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The next most antient nation in the world is that of India, and which undoubtedly exists at this day. The stature of the people in that country, at the time of Alexander the Great, was five cubits, that is, seven feet and a half *, though they were then an old nation, very much older than any nation now in Europe: But, at present, it is well known that they are but a diminutive race, less, for the greater part, than we are.

From the Egyptians and Indians I descend to the Greeks, a nation but of yesterday, compared to them, but whose customs and manners we know very much better, even as far back as the time of the Trojan war; for these Homer has described so accurately, that, by studying diligently his two poems, we may know the manners of that age almost as well as those of our own. What he has said of

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of them mixed with Greeks and other foreigners, the Egyptians were *subfusculi et atrati*, that is, were become Mulattoes, instead of Negroes, (Lib. xxii. Chap. 16. p. 268.).

If this be so, what shall we think of the learning of Mr David Hume, who has said, in one of his Essays, that no black men did ever excel in any art or science, and that they are by Nature incapable of such excellence; when there is nothing that a scholar knows with more certainty, than that the antient Egyptians were not only men of excellent natural parts, of which Herodotus furnishes several proofs, but exceeded all those of their age, or of any age that has been since, in all arts and sciences, and were as eminent for their valour and their conquests, as for their wisdom and policy.

It is proper, however, to observe, that it appears, from some Egyptian busts that are to be seen in Rome, that, though the Egyptians were black, and had woolly hair, and likewise features very different from the Greek and Roman features, yet they were not thick-lipped nor flat-nosed, like the African Negroes, but were more like the East Indians. But I hope the reader will not believe that the qualities of the mind depend upon the features of the face, any more than upon the colour of the skin or the nature of the hair.

* Arrian's *Expedition of Alexander*, Lib. v. where he says that the stature of King Porus was above five cubits.

the wonderful strength of his heroes, I have mentioned in the preceding chapter : And, if the Reader believe him in that particular, he can have no doubt, that men of such surprising strength were likewise of superior size. He has said nothing positively of the stature of any of his heroes, but only comparatively, as I shall presently observe : Nor is this to be wondered at ; for I know no historian, antient or modern, that says any thing of the size of the men of his own nation, except comparatively with that of other nations. But, in that fine episode of his, called, by the antient critics, the Τειχοσκοπία, or *Prospect from the Walls* *, he has given us a very accurate description of the persons of several of the Greek heroes, which, I am persuaded, he had from very good information. In this description he tells us that Ulysses was shorter than Agamemnon by the head, shorter than Menelaus by the head and shoulders ; and that Ajax was taller than any of the Greeks, by the head and shoulders ; consequently Ulysses was shorter than Ajax, by two heads and shoulders, which we cannot reckon less than four feet. Now, if we suppose those heroes to have been no bigger than we, then Ajax must have been a man about six feet and a half, or, at most, seven feet : And, if so, Ulysses must have been most contemptibly short, not more than three feet, which is certainly not the truth, but a most absurd and ridiculous fiction, such as we cannot suppose in Homer : Whereas, if we allow Ajax to have been twelve or thirteen feet high, and much more, if we suppose him to have been eleven cubits, as Philostratus makes him †, Ulysses, though four feet short of him, would have been of a good size, and, with the extraordinary breadth which Homer observes he had, may have been as strong a man as Ajax.

It was only in after ages, when the size of men was greatly decreased, that the bodies of those heroes, if they happened to be discovered, were, as was natural, admired and exactly measured.

Such

* Iliad. F. Vers. 121.

† *Heroicor.* Prooem. Cap. i. N. 2.

Such a thing happened in Laconia, where the body of Orestes was discovered, and found to be of length seven cubits, that is, ten feet and a half. The story is most pleasantly told by Herodotus, and is to this effect :

The Lacedemonians were engaged in a war with the Tegeatae, a people of Arcadia, in which they were unsuccessful. They consulted the Oracle at Delphi, What they should do, in order to be more successful ? The Oracle answered, That they must bring to Sparta the bones of Orestes, the son of Agamemnon. But these bones they could not find ; and therefore they sent again to the Oracle to inquire where Orestes lay buried. The God answered in hexameter verse, but so obscurely, and enigmatically, that they could not understand what he meant. They went about inquiring every where for the bones of Orestes, till, at last, a wise man among them, called by Herodotus *Liches*, found them out, partly by good fortune, and partly by good understanding ; for, happening to come one day to a smith's shop, in the country of the Tegeatae, with whom at that time there was a truce and intercourse betwixt the two nations, he looked at the operations of the smith, and seemed to admire them very much ; which the smith observing, stopped his work, and, 'Stranger,' says he, 'you, that seem to admire so much the working of iron, would have wondered much more if you had seen what I saw lately ; for, as I was digging for a well in this court here, I fell upon a coffin that was seven cubits long ; but, believing that there never were, at any time, bigger men than the present, I opened the coffin, and found there a dead body as long as the coffin ; which having measured I again buried.' Hearing this, the Spartan conjectured that the words of the Oracle would apply to a smith's shop, and to the operations there performed ; but, taking care not to make this discovery to the smith, he prevailed on him, with much difficulty, to give him a lease of the court ; which having obtained, he opened the coffin,

and carried the bones to Sparta. After which, says our author, the Spartans were, upon every occasion, superior in fight to the Tegeatac*.

This account of the stature of Orestes is much more to be depended upon than what the above mentioned author, Philostratus, tells us †, that the stature of the heroes who fought at Troy was ten cubits, and that the body of Ajax, which was discovered by the washing of the sea, was, as I have said, eleven cubits : So far is certainly true, that the body of Ajax was discovered in later times ; for it is related by a much more credible author, I mean Pausanias, who says he had an account of it from one that saw it, and related to him a circumstance concerning it, tending to show that it was of prodigious size ‡.

What Herodotus relates of the body of Orestes, he does not give us as a mere hearsay, like many other stories which he tells, or as a story for which it was necessary to give his authority, but as an historical fact well known, of the truth of which he does not appear to have had the least doubt ; for, though he made it a law
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* Lib. i. Cap. 67. and 68. The reader will here observe how agreeably Herodotus varies and diversifies his narrative with dialogue. It is one of those many beauties of his composition, which, in my opinion, give his style the preference to that of every other historian. The Sacred Historians of the Old Testament diversify their style in the same manner ; which makes some of the narratives there, particularly the story of Joseph, a very pathetic drama.

† *Heroic. Prooem. Cap. i. N. 2.*

‡ Pausanias, Lib. i. Cap. 35. The circumstance he mentions is the size of the bone of the knee, which, he says, was as large as the disk with which a young athlete exercised himself. The passage is suspected by some to be corrupted ; but there is no doubt that Pausanias meant to give a proof of the extraordinary size of Ajax.

of his history, as he tells us, to relate what he heard, yet he frequently lets us know that some things, he had heard, he did not believe, even when he ought to have believed them, because they were certainly true. Thus, he was told by the Phœnicians, that, in their voyage from the Red Sea round Africa, in sailing westward, they had the sun upon their right hand. ‘This,’ says Herodotus, ‘I do not believe, though others may * :’ But our more perfect knowledge of the climates of the earth, and of the course of the sun, has now made it certain that it must have been so. In short, I cannot omit this opportunity of declaring my opinion, that Herodotus is not only the most pleasant historian, for the style, that ever wrote, but most diligent and accurate as to the matter, and, so far from being credulous, as he is commonly esteemed, a most scrupulous examiner of evidence †.—But to return to the stature of the antient Greek heroes.

Plutarch, in the beginning of his life of Theseus, relates it as a fact most certain, that there were in those days men of extraordinary prowess, and of wonderful strength of body and swiftness of foot. The body of Theseus was discovered, in later times, in the island of Scyros, by Cimon the son of Miltiades, and was brought to Athens, where heroic honours were paid to it. Plutarch does not
mention

* Lib. iv. Cap. 42.

† Where there is any doubt in the matter, he generally gives you both sides of the story, and then examines which of the relations is the truth, as in the question, Whether Helen was carried to Troy, as the Greeks said, or detained in Egypt, as the Egyptians told Herodotus? (Lib. ii. Cap. 112. *et sequen.*). And the trouble, he took to get information, was really surprising. Thus, in order to inform himself whether the Hercules of Tyre, or he of Thafus, was older or younger than the Greek Hercules, he made a voyage, first to the one place, and then to the other, (Lib. ii. Cap. 44.).

mention what the size of the body was, only says in general, that it was a great body ; by which he no doubt means that it was a body much above the size of the Athenians at that time.

The most of our philosophers at present are, I believe, of the opinion of the smith in Herodotus, who might be excused for having that opinion at a time when perhaps no other heroic body had been discovered. But, in later times, I believe there was not the most vulgar man in Greece, who did not believe that those heroes were very much superior, both in Mind and Body, to the men of after times. Indeed, they were not considered as mere men, but as something betwixt gods and men, and had *heroic* honours paid them, which were next to the *divine* *. On the stage they were represented as of extraordinary size, both as to length and breadth : For the actor was not only raised upon very high shoes, which they called *cotburns*, but he was put into a case that swelled his size prodigiously †. This accounts for the high style of antient tragedy, in which the heroes speak a language so uncommon, that, if I considered them as men nowise superior to us, I should think it little better than fustian, and should be apt to apply to it, what Falstaff says to Pistol, ‘ Prithee, Pistol, speak like a man of this world ‡.’ And I apply the
same

* These two honours the Greeks expressed by the words *Θεῶν* and *Ἡρώων* ; the former of which applied to the Gods, the other to the Heroes ; See Herod. Lib. ii. Cap. 44.

† See Lucian in his treatise *De Saltatione*, p. 508. (Paris edit. in fol. 1615.) where we have a particular description of the dress and appearance of a tragic actor ; and I have somewhere read a very ridiculous story of one of them, who, coming upon the stage, fell, and broke his cast, so that all the trash with which it was stuffed came out, and was scattered upon the stage in the view of the whole people.

‡ This observation applies particularly to Æschylus and Sophocles, whose style is truly heroic, and worthy of the *Cotburn*. As to Euripides, whatever other merit he may have, I think he makes his heroes speak much too like the sophists and rhetoricians of his own time.

same observation to Homer's poems. If I considered his heroes as no more than men of this world, I should consider the things he relates of them as quite ridiculous ; but, believing them to be men very much superior to us, I read Homer with the highest admiration, not only as a poet, but as the historian of the noblest race of men that ever existed--Thus, by having right notions of the superiority of men in former times, we both improve our philosophy of man, and our taste in poetry. But, to proceed :

The Romans were, as I have said *, descended of four Greek colonies, which settled in Latium at different times ; the first, a most antient one, from Arcadia, under CEnotrus, no less than seventeen generations before the Trojan war. They were therefore an old nation, when they first came to have any thing to do with the Gauls, who were a young nation, compared with them. We are, therefore, not to wonder that the Romans, though they may be supposed to have been originally as big men as the Greeks who fought at Troy, yet, by having been so long civilized, notwithstanding their great sobriety, parsimony, and even austerity of manners, and notwithstanding their constant practice of war, were so much inferior to the Gauls in size, strength, and fierceness, that they could not bear their first onset at the battle of Allia, but ran away almost without resistance. The wonderful pre-eminence of the Gauls in size is evident from the account that Livy gives of the combat betwixt Manlius and a Gaulish champion †. The same superiority con-

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† Liv. Lib. vii. Cap. 10.—Where, describing the superior stature of the Gaul, he says, *Gallus, velut moles superne imminens*, attacked the Roman, who was of the ordinary military stature at that time. It is evident, from his account of the combat, that it was by the agility of Manlius, getting within
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tinued in the days of Julius Caesar : And the Germans were still bigger than the Gauls *. Now, what is become of all these tall

the arms of the Gaul, that is, his shield and sword, and stabbing him with his short Spanish sword, that he overcame him ; for it appears to me, that, if the Gaul had got but the one blow, he aimed at him, with his great cutting sword, he would have brought him down to the ground ; but the Roman, getting under his sword and clost in with him, the Gaul, *vanum caesim cum ingenti sonitu ensem dejecit.*

* As to the superiority of stature of the Gauls, See Julius Caesar, (*Lib. ii. de Bello Gallico, cap. 30.*) where he does not tell us directly that the Gauls were much larger men than the Romans, (for that was a thing that every man in Rome knew), but occasionally, in the same manner as Herodotus has let us know that the Egyptians were black men with woolly hair, (See p. 144.). For, when he was besieging a town in Gaul, and had built a tower at some distance, by which he was to scale the walls, the Gauls laughed at the Romans, and asked, in scorn, with what force of men they could move such a machine ? *nam plerisque hominibus Gallis, prae magnitudine corporum suorum, nostra brevitatem contemptui est.* As to the Germans, speaking of the great nation among them, the *Suevi*, he says that they were *immani corporum magnitudine*, (*Ibid. lib. 4. in initio*) ; which, from an author so correct and chaste in his style, is a very strong expression. He could find no stronger in describing a great image or idol of the Gauls, in which they inclosed several men, and sacrificed them to their Gods, by burning them alive ; for that image, he says, was also *immani magnitudine*, (*Ibid. Lib. vi. Cap. 15*). Hirtius, (*De Bello Africano, cap. 40.*) in describing a field of battle covered with dead bodies, mentions, *mirifica corpora Gallorum et Germanorum*, and, again, *mirifica specie et magnitudine*. It will be asked, What I suppose the size of those Gauls and Germans to have been ? My answer is, that the ordinary stature, or *iusta statura*, as they called it, among the Romans, in the days of Julius Caesar, being six feet ; (for Augustus, who was five feet nine inches, is said to have been *brevis staturae*, See Suetonius, in *Vita Augusti, cap. 9. et Tiberii, cap. 68. et ibi Notae Variorum*), I cannot suppose that the stature of the Germans, who were *immani magnitudine*, was less than that of the Patagonians, viz. about nine feet. M. Buffon, who, I suppose, is not much conversant with the antient authors, will answer very shortly to these authorities, that he does not believe what they say, or they have magnified, or are prejudiced. And, indeed, I observe that those, who are not scholars, give no faith to the antient authors, but judge from the opinions which they have formed from what they themselves have seen.

tall Gauls and Germans? Their race is certainly not totally extinguished; but their size and strength are gone. For it will not be pretended that the Romans were less men than we are, and yet there is no such superiority of stature above us to be found in Europe.

The Cimbrians, according to the account that Plutarch has given of them in the life of Marius, appeared in Gaul like a people that had dropt from the clouds; for the Romans, even in the time of Plutarch, knew not with any certainty from whence they had come. They were so big, so strong, and so fierce, that nothing could withstand them; but they carried every thing before them like a torrent. They defeated four Consular armies, and would have extinguished the Roman name, if it had not been for the extraordinary abilities of Marius, the armour and discipline of the Roman legions, and those violent exercises they were in use to take, by which they made their bodies so firm, and able to endure labour; while the bodies of the Barbarians, for want of these exercises, though, by nature, much stronger and larger than those of the Romans, were soft and *fluid*, as the Roman authors express it: A remarkable effect of which was seen, as I have elsewhere observed*, in the last battle with these barbarians. For one of the greatest advantages, which a civilized people have over a barbarous, is that voluntary pain and labour which civilized men submit to in exercises, but which the barbarian will not endure, any more than the brute. It was not, therefore, without reason, that Lucian, in the fine dialogue above quoted †, *De Gymnastis*, makes Anacharsis, the Scythian, wonder how the Athenian young men could voluntarily endure so much pain from blows and bruises, as he saw them endure in the Palæstra, which is the scene of the Dialogue: And we, who pretend to be

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* Pages 77. and 112.

† Page 87.

so much wiser than the antient Scythians, would likewise wonder very much if we saw the children of the Indians of North America accustoming themselves to endure pain, by taking up burning coals in their hands, and trying who shall bear the pain longest.

The Goths, Vandals, Huns, and other nations, from the east, which over-ran the Roman empire, and settled in the several provinces of it, we cannot suppose to have been men of less size and strength than the Gauls and Germans, in the days of Julius Caesar, as all those nations appear to have come originally from the same *officina gentium*, I mean the country about the *Palus Moeris*; or, if they were degenerated, we cannot suppose but that the Romans were still more, or, at least, as much degenerated; so that their superiority in body would be still as great as it was some hundred years before. We cannot, therefore, doubt of what the historians of those times tell us, that they were much larger and stronger than the Romans, which enabled them to use much heavier arms than the Romans, so that these could not stand the shock of them*; and, if
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* See the description given by Ammianus Marcellinus, of a great battle fought by Julian, afterwards Emperor, against the Alemanni, (Lib. xvi. cap. 12.) where he tells us, that the first line of the Romans was born down by the weight of the armour of the Barbarians, as well as by the superior size and strength of their bodies; and it was only the second line that could stop them, by the closeness of their order, their excellent discipline, and the advantage which their short stabbing sword gave them in close fight. And Jornandes, *De Rebus Geticis*, Chap. 39. in describing that most famous battle, the bloodiest we read of in history, (for there perished in it 250,000 men,) fought betwixt Attila the Hun, and Ætius the Roman General, who commanded, besides Romans, a very great army of Visigoths, Alani, and other barbarous nations, observes, that the Romans were so weak and effeminate, that they could bear and wield only very light arms, and were overcome by the heat and dust, as much as by the arms of the enemy. This Jornandes makes Attila say, in his speech to his men upon that occasion; in which he desires of them that, despising the Romans, they would fall with vigour on the *Visigoths* and *Alani*. And, from his account of the battle, it is evident that these auxiliaries of the Romans bore the brunt of it.

it had not been for the recruits that they got for their armies among the Barbarians, they must have been conquered by them much sooner †. Now, the present inhabitants of Europe are, for the greater part, the descendants of those nations, yet they are certainly

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† Of this the historians of those times furnish many proofs, particularly Ammianus Marcellinus, (Lib. xvii. Cap. 13. et Lib. xxxi. Cap. 10. p. 401.) and Zosimus, in the Fourth Book of his History, (p. 472.) tells us that the Emperor Valentinian secured Gaul, by insisting and incorporating in his legions the Barbarians then inhabiting upon the Rhine. The same author tells us that Theodosius the Emperor, in order to recruit his army, invited all the refugees and deserters of the Barbarians beyond the Danube, to come and enlist in his armies, which they did in such numbers, that they outnumbered the Romans of his army. In short, it appears to me, that, without the recruits from the Barbarous nations, the Romans, in those times, would have had no army of any value, either for number or strength of men : for it is evident, that not only the men were much degenerated in Italy, and the provinces, but their number so much decreased, that it was necessary to bring Barbarians into the empire, in order to re-people it. This practice appears to have been first begun by Constantine the Emperor, who settled in Thracia, Macedonia, and Italy, 300,000 Sarmatians, who had been driven out of their own country, (See Ammianus, Lib. 17. Chap. 12. p. 139.) And I have no doubt but it was with the view of re-peopling the country, and furnishing recruits for his army, that Valens the Emperor let such a multitude of Goths pass the Danube, who afterwards rose against him, and killed him in battle. And not only were the Romans, at that time, obliged to take their soldiers from the barbarous nations, but also their Generals ; for the three greatest Generals, they had in later times, were Barbarians, that is, neither Greeks nor Romans. Ætius, the General of Valentinian III. who gained the famous battle above mentioned against Attila, was from Maesia, (Jornandes, cap. 34. p. 616.) and as Maesia was then possessed by the Goths, it is probable he was a Goth. And Belisarius, and Narfes, Justinian's two great Generals, who recovered for him Italy and Africa, were both foreigners, the one a German, the other a Persian eunuch. And the two greatest men about his court, the one in the military department, the other in the civil, Johannes, the *præfælus prætorio*, and Tribonian, his Chancellor, who compiled that most valuable collection we have of the Roman Law, were, the one a Thracian, the other a Cappadocian. The Roman nobility appear, therefore, at that time to have been so much degenerated, as to be unfit, either to conduct the armies, or to direct the councils, of the state.

not remarkable at present for their size, which, it will not be pretended, is greater than that of the Romans was ; consequently they must be less than their ancestors, who were so much bigger than the Romans.

That the Romans were very much degenerated in body, as well as Mind, when they were conquered by those Barbarians, cannot, I think, be doubted. This degeneracy, at least with respect to the body, I believe, was going on, from the time of the building of their city, but imperceptibly, like the decline of the Greeks from their heroic stature. But, in later times, it was so visible, that they were forced to bring down their military standard very near as low as ours is at present *. Long before that, it was observed by one of their learned men, Solinus Polyhistor, who speaks of it as a thing quite certain ? ‘ Quis, enim jam aevo isto, non minor parentibus suis nascitur †.’ This persuades me that the decline of the stature was going on very fast among them at that time, as fast as, I think, it is among us at present ; whereas, before, as it went on gradually and imperceptibly, it is not taken notice of by any of their authors.

But, though we should give no credit to those antient authors, there are monuments still extant, one, particularly, to be seen in our own island, which, I think, ought to convince every man, that the men of antient times were much superior to us, at least in the powers of the body. The monument I mean is well known by the name of *Stonehenge* ; and there are several of the same kind to be
seen

* See Codex Theodosianus, Lib. 7. Tit. 13. *De Tyronibus*, Law iii. of that title, by which Valens and Valentinian reduced the military standard to 5 feet 7 inches; from 6 feet, or, at the lowest, 5 feet ten inches, which it had formerly been. See what I have said of the *Iusta Statura* among the Romans, p. 152.

† Chap. 5.

seen in Denmark and Germany. I desire to know where are the arms now, that, with so little help of machinery as they must have had in those days, could have raised, and set upon end, such a number of prodigious stones; and put others upon the top of them, likewise of very great size? Such works are said, by the peasants in Germany, to be the works of Giants; and I think, they must have been Giants, compared with us. And, indeed, the men, who erected Stonehenge, could not, I imagine, be of size inferior to that man whose body was found in a quarry near to Salisbury, within a mile of which Stonehenge stands. The body of that man was fourteen feet ten inches. The fact is attested by an eye-witness, one Elyote, who writes; I believe, the first English-Latin Dictionary that ever was published. It is printed in London in 1542, in folio, and has, under the word *Gigas*, the passage which is quoted at the bottom of the page †.

If

* ‘ About thirty years passed, and somewhat more, I myselfe beyng with my
 ‘ father syr Rycharde Elyote, at a Monasterye of regular Chanons, called Juy
 ‘ church, two myles from the citie of Sarisburie, beholde the bones of a deade
 ‘ man founde deep in the grounde, where they dygged stone, which beinge joyned
 ‘ togyther, was in length xiiii. foote and ten ynches, there beyng mette; whereof
 ‘ one of the teethe my father hadde whych was of the quantytie of a greatte
 ‘ walnutte. This have I wrytten, bycause somme menne wylle beleve nothyng
 ‘ that is out of the compasse of theyr owne knowlege, and yet som of them presume
 ‘ to have knowledge above any other, contempnyng all men but them selves or
 ‘ suche as they favour.—It is for the reason mentioned by this author, that I have
 given so many examples of greater size of men than is to be seen in our days,
 to which I could add severall other concerning bodies that have been found in this
 our Island, particularly one mentioned by Hector Boece, in his *Description of Scot-*
land, prefixed to his Scotch History, where he tells us, that, in a certain church,
 which he names, in the shire of Murray, the bones of a man of much the same size
 as those of the man mentioned by Elyote, viz. fourteen feet, were preserved. One of
 these bones Boece himself saw, and has particularly described.

If the degeneracy of the bodies of men began so early, I think, it will not be presumed that it has ceased within these last two or three hundred years. There is an author, Joannes Baptista Porta, a Neopolitan, who wrote a book of a great deal of learning and observation, upon, what I think a curious subject, Physiognomy. It is printed in Naples in 1602. He, speaking of the human stature, says *, 'That, in this middle climate, (meaning Italy), the middle stature is six feet and a half; but seven or eight feet is a great stature. In the northern countries, where the men are larger, the just stature is seven feet; but a tall man is eight or nine feet.' I can give no reason why an author, who does not maintain an hypothesis as I do, that there is a degeneracy of the bodies of men, should exaggerate in this matter; and therefore I take the fact just as he gives it, and I ask whether it be true that, at present, the middle size of the men of Italy is six feet and a-half, and of the northern countries, seven feet?

That he does not exaggerate with respect to the stature of the men of the northern countries, I am convinced by the stature of King Henry Darnley, husband to Mary Queen of Scotland, who lived about the time that Baptista wrote. His stature, as marked upon a pillar of the Abbey Church of Holyroodhouse that is now fallen, was seven feet eight inches; and yet none of the co-temporary authors, who mention him, speak of him as a man of gigantic or extraordinary stature, but only say that he was a fine person of a man, and performed his exercises very well. From whence I infer, that there were, at that time, in Scotland, many men of rank and birth, of equal, if not superior size. And, much later than the days

* Lib. iv. Page 211.

days of Henry Darnley, there lived in my neighbourhood, in the north of Scotland, a gentleman of the name of Straiton, not dead above fifty years, who, as I was informed by a gentleman who lived a year in the house with him, was seven feet in height, and as broad as any two ordinary men, such as we see now. His son was a big man, but nothing like his father ; and his grandson, who is yet living, is a man of the ordinary stature of this generation.

There is a record of the decrease of the human stature in modern times, that is, or, at least, was to be seen within these few years. An account of it I had some years ago, in a French letter, from a learned gentleman in France, with whom I corresponded. He says that, some time about the year 1740, the Journalists of Trevoux, having been informed of bones of extraordinary size in the burial-place of the monastery of the *Grande Chartreux*, situated near to *Grenoble*, in that branch of the Alps which runs into Dauphiny, desired that one of their number would correspond with some of the principal men in that religious house, and inform himself what truth there was in the report. Accordingly he did so ; and the account he got was to this effect : That the Religious of this order, since their foundation in the end of the 12th century by St Bruno, have always buried their dead in a large vault, cut out of the rock, where the bodies are interred in different cells or niches, each by itself, with the name of the person marked upon the cell, the year of God, the month and day when he was interred : So that here is a record, such as, I believe, is not to be found any where else in the world, of the size of the human body, for near 600 years. If, in so long a time, there had been no visible decrease of the size, I should have thought it a very strong argument in favour of the hypothesis, that there has been no alteration in the size of men since
the

the beginning of the world ; though, it is to be observed, that these religious live with such extreme sobriety, and even austerity, taking exercise at the same time, and labouring very much with their hands, that I should not have wondered if the diminution of their size had been found but small even in 600 years : But, so far from that, the information which the journalists got, was, that the bones of those who died in this century compared with the bones of those that died 500 or 600 years ago, were like those of a child of five or six years of age compared with those of a full grown man : They added, that the bones of the men of this age were of a whitish colour, and of no firmness or solidity ; whereas the bones of the first ages of their house were of a compact substance, not at all porous, and of a brownish colour ; and the joints or articulations of these antient bones resembled strong springs, whereas those of the later bones were like wet tripe.

This decrease appears, even to me, so extraordinary, that, though I cannot disbelieve the fact altogether, I am apt to suspect that it is a good deal exaggerated. My correspondent says, and says truly, that those monks are not men of letters, nor qualified to examine accurately any natural phenomenon. But they might have measured some of the largest bodies of the preceding centuries, and have informed us of their length, and of the dimensions of certain parts of them. I have therefore been at pains to get a more accurate information of this extraordinary phenomenon, but have not yet succeeded. One thing, I think, certain, that the author of the letter to me has not exaggerated in the account he has given of the report from the convent, in favour of my hypothesis ; for his opinion, he tells me, is, that there is no such decrease of the human body ; and he accounts for the extraordinary size of bones of men that have been found in different countries, from the growth of those
bones

bones in the earth : And he thinks that a particular inquiry should be made into the nature of the soil or rock where these bodies are laid ; as he thinks upon that must depend very much the vegetation of the bones.

But, without having recourse to bones or monuments of any kind, if a man has looked upon this world, as long as I have done, with any observation, he must be convinced that the size of men is diminishing. I have seen such bodies of men as are not now to be seen : I have observed in families, of which I have known three generations, a gradual decline in that, and, I am afraid, in other respects. Others may think otherwise ; but, for my part, I have so great a veneration for our ancestors, that I have much indulgence for that antient superstition among the Etrurians, and from them derived to the Romans, of worshipping the *manes* of their ancestors, under the name of *Lares*, or Domestic Gods * ; which undoubtedly proceeded upon the supposition, that they were men superior to themselves, and their departed souls such genii as Hesiod has described,

Ἑσθλοὶ, ἁλξικακοὶ, φυλακὲς θνητῶν ἀνθρώπων †.

And, if antiquity, and the universal consent of nations civilized and barbarous, can give a sanction to any opinion, it is to this, that our forefathers were better men than we. Even as far back as the Trojan war, the best age of men of which we have any particular account, Homer has said that few men were better than their fathers, and the greater part worse ‡ : And Horace has bestowed a praise upon Diomedes, for which he has no warrant from Homer, when he has said, that he was *melior patre* §. But, when I speak of the universal consent of

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nations,

* See Passerius's Dissertation *De Laribus*, prefixed to his *Picturne Etruscae*.

† *Operae et Dies*, V. 123.

‡ 'Οἱ πολλοὶ κακίους' παυροὶ δὲ τε πατρὸς ἀρίστου. *Odyss.* B. V. 277.—This he puts into the mouth of the Goddess of Wisdom.

§ Tydides *melior patre*. *Lib. i. Ode 15.*

nations, I ought to except the men, and particularly the young men, of this age, who generally believe themselves to be better men than their fathers, or than any of their predecessors.—But, to return to our subject :

Nor is it in Britain only that this decline of the human body is to be observed. It is, in a greater or less degree, all over Europe. The King of Prussia's army, according to my information, is nothing, in respect to the stature of men, like what it was when he entered Saxony in the beginning of the last war, at the head of eighty thousand men, of whom there was none, even in the middle ranks, that was below six feet, as I was told by a gentleman who was present at the review of them. This decline has happened in the memory of men, who are not yet old. But, when we go farther back, the superiority in bodily strength, and, I suppose, in size, to the men of this generation, appears, from memorials yet extant, to be still greater. These memorials are military weapons, such as the sword of Charles XII. of Sweden, which a late traveller in the north, Mr Wraxall, saw at Rosenbourg, a palace of the King of Denmark, which was four feet long in the blade, and such as, he is positive, the present King of Denmark could not draw ; and he doubts whether he could *heave it*, as he expresses it *. What the stature of Charles was, I do not know ; but the stature of his antagonist, Peter, the Emperor of Russia, is well known at Petersburg, from an image of wax there preserved of him, to have been six feet four inches—a stature much exceeding that of the present heir-apparent of that empire, or, I believe, of any of the grandees in it.

If we go farther back, we find, in Elbing, a town of Germany, swords, which are there preserved, of the Knights of the Teutonic order,

* Wraxall's Tour, p. 28. of the second edition.

order, of such prodigious size, that the above mentioned traveller, Mr Wraxall, is afraid to tell the dimensions of them, though he measured them exactly, for fear the reader should think he lied : And, he says, he is almost tempted to think that they are weapons of ostentation, like those which Alexander buried in India * :—So much superior were these swords to the sword of Charles XII. of Sweden, and such was the decline of the strength of men, from the twelfth or thirteenth centuries, when those Knights flourished, down to this century.

There are, however, still to be found in Europe some remains of the antient stature of men, or what may be supposed to be near to it. Such men some of the princes of Germany have a fancy to collect, and make part of their retinue. I was informed by a Lady, to whom I can give perfect credit, that she saw, some years ago in Venice, the Prince of Wirtemberg, who travelled with a train of that kind. She was entertained at the Prince's house, where there was a page that was seven feet two inches high, who carried about the tea to the ladies ; and, at dinner, there was a man of seven feet six inches, that stood behind the Prince's chair. These men, she told me, were from Hungary.

Before I conclude this chapter, I will mention some things, which are obvious to every body, and, in my apprehension, are evident marks of the degeneracy of the species among us. When the animal is complete and perfect, such as every animal undoubtedly is in the natural state, it must have every part that is necessary for its preservation. Of these none is more necessary than teeth to such an animal as Man. Now, how many, even young people, do we see

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among

* Ibid. p. 330.

among us, without teeth, or with very bad teeth : And it is well known that many of our children die in getting a part so necessary. This cannot possibly happen to any animal in the natural state ; nor does it happen even to such animals as we have tamed. Among wild men, or those in the first ages of society, I think it is impossible that there can be any thing so unnatural : And we know very certainly, that the teeth of savages are remarkably fine, and last to extreme old age. The wild girl, I saw in France *, lamented nothing in her tame state more than the loss of a very fine set of teeth, which she had when she was first housed. Then, as to the Senses, what defects are daily to be seen in them ? They are but five ; and there are some persons who want altogether two of them, Taste and Smell : And they, who have not that defect naturally, acquire it by the immoderate use of tobacco or spirits ; for a great snuffer, or a great brandy drinker, can scarcely be said to have either smell or taste. Then, that most valuable Sense of Seeing ; How imperfect is it in many ? In my younger days, old people only used spectacles ; but now we see young men using them, and even walking the streets with that ornament on their noses. And, indeed, we are so much obliged to the modern invention of glasses, which supply this defect of Nature, that, without it, many people would be altogether unfit for the business of life. Among the antients, we have no complaints of this kind, except in old age : And, among Savages, this sense is more perfect than we can well conceive.—There is another most valuable Sense, and most useful for all the purposes of life, in which too we are very defective ; I mean Hearing. This defect likewise we endeavour to supply by art, but in a very clumsy and imperfect way. Now, where there are such defects in these necessary parts of every animal, is it possible to believe that we are not impaired in every other bodily quality ?

There -

* Origin and Progress of Language, Vol. i. p. 193.—242. Second Edition.

There is one proof more, I will mention, of the degeneracy of the Bodies of men in modern times, which is not so obvious as the things I have just now mentioned, but to me is very convincing, though I do not know that it has been taken notice of by any author. I believe it is a general law of Nature, that the longer an animal is in the womb, the stronger, bigger, and longer lived that animal is. And I think it is certain, that, if the time of gestation of our females was, in antient times, longer than it is at present, the offspring must have been stronger. Now, there is a proof, which convinces me, that, in the heroic ages, the ordinary time of gestation was nearly twelve months, that is, lunar months of twenty-nine days and a half. This I collect from a passage in Homer, which can bear no other interpretation *.

In

* The passage is in the 11th Book of the *Odyssey*, which contains the genealogies of the most antient heroes and heroines of Greece, and is, in my opinion, as authentic history as any in Homer. Ulysses, there, in giving an account of the generation of Peleas and Neleus, who were begot by Neptune, makes Neptune say to the woman,

Χαιρὲ, γυναι, Φιλοτῆτι· περιπλομένου δ' ἐνιαυτου,

Τέξῃς ἀλλὰ τέκνα, ἐπεὶ οὐκ ἀποφῶλιοι εὐνῇ

Ἀθάνατων. —

Odysf. A. Vers. 247.

The passage is understood in the sense I give it by Eustathius; nor does he give any different meaning to it, as he always does, where there is any ambiguity, and sometimes where I think there is none. Neither, indeed, do I think that the word *περιπλομένου*, that is, *περιπελομένου*, as Eustathius interpretes it, can bear any other meaning than that of *finished* or *accomplished*; or, to express it with a propriety, for which there is not one word in English, *the being in finishing or accomplishing*; *συμπληρωμένου*, 'οὐ μὴν καὶ πεπληρωμένου ἦδη, as Eustathius has well distinguished these two senses. And in this sense the passage is understood by Favorinus, and Aulus Gellius, (Lib. iii. cap. 16.); for he makes *περιπλομένου* to signify *nearly ended*. In this sense the word is used in another passage of the same author, (*Odysf. A. Vers. 16.*)

where,

In much later times, there are examples to be found of women going eleven months *, nay, the full heroic time of twelve months, as we are informed by Charisius, the Grammarian †, who tells us that the name of the *Gracchi* was derived from the mother of one of them carrying him in her womb twelve months. And there is one case mentioned, both by Gellius, in the above quoted chapter, and by Pliny, in his Natural History ‡, of a woman who was pregnant thirteen months. But these are rare cases; and all I would observe of them is, that they are only to be found in antient times. But what I insist upon is, that, among the Greeks and Romans, long after the heroic times, and as late down as the days of Augustus Caesar, the common time of gestation of a woman was ten of their months, that is, lunar months. Virgil says,

Matri longa decem tulerunt fastidia menses.

Ecl. IV. Vers. 61.

And Terence, in the *Adelphi*, § has these words,

Virgo, ex eo compressa, gravida facta est;

Mensis hic decimus est;——

And

where, speaking of the time appointed for Ulysses's return to his native country, he says,

Αλλ' ὅτε δὴ ἴτος ἦλθε, περιπλομένων ἐνιαυτῶν,

Τῷ οἱ ἐπεκλώσαντο θεοὶ οἰκονδὲ νεισθαι

Εἰς Ἰθάκην——

Here it is impossible to understand *περιπλομένων* in any other sense, than that of the year's *being nearly accomplished*.

* Gellius, Lib. iii. Cap. 16.

† Lib. i. p. 78.

‡ Plin. Lib. vii. cap. 5.

§ Act. iii. Sc. 4.

And the common formula in the Roman law, of instituting a posthumous heir, was, ‘ If a son or daughter be born to me within ten months after my death, let him or her be my heir *.’

And that this was as well known among the Greeks as among the Romans, is evident from a story told by Herodotus, of a Spartan King. This King, whose name was Ariston, liking his friend's wife better than his own, got her from him in exchange for something else that he gave him ; a commerce not very unusual among the Spartans, as Xenophon has informed us, in his treatise upon the *Polity of the Lacedemonians*. This new wife of his was delivered of a son before the ten months, from the time he had got her, were expired. Ariston got the news of his wife's delivery while he was sitting in council with the Ephori : Upon which, counting the months on his fingers, he swore that the child could not be his, supposing him to be the child of her former husband. Of this he repented afterwards, and, acknowledging him for his son, gave him the name of Demaratus, for the reason mentioned by Herodotus. In consequence of this acknowledgement of the father, he succeeded to the kingdom after the father's death ; but a party having been formed against him, and the oath of his father before the Ephori having been called to remembrance, and the Oracle consulted upon the occasion, he was deposed, and another of the same family put into his place. Upon which, not brooking the life of a private man, he fled to Xerxes, the Persian King, and came with him into Greece †. Before he went away, he had a conversation with his mother, which Herodotus has related at great length. In this conversation, she told him, among other things, that Ariston was mistaken, in supposing that

* L. Gallus 29. D. de Lib. et post Haered. Inst. and L. Cod. quidam 4. D. De Post Haered. Instit. Jul. Paul. Lib. 4. Lent. Tit. 7. § Septimo Mense.

† Herodot. Lib. vi. Cap. 62. et sequen.

that a woman could not be brought to bed before the tenth month was completed ; for, says she, all do not make out the ten months, but some are delivered in the ninth month, and some even in the seventh. ‘ And you,’ she adds, ‘ was a child of the seventh month.’

I know that those, who are not scholars, and, consequently, know not the very great merit of this historian, do not give much credit to the facts he relates ; but, though they should not believe his facts, yet, I think, they cannot doubt what he relates of the manners and opinions of his own age, especially concerning a fact about which there could be no difference of opinion.

If there was any doubt of the matter, the testimony of Aristotle is alone sufficient to decide the question. ‘ Other Animals,’ says he, ‘ have the time of the birth of their offspring fixed by Nature : And it is ‘ only among men that it is uncertain and various ; for the gestation among them is sometimes seven months, sometimes eight months, sometimes nine, but ten for the greater part, with a part sometimes of the ‘ eleventh month*.’ The reason of this so great variety in our species, and the difference betwixt us and other animals, in this respect, is, according to my apprehension, that those animals live in a natural, whereas we live in an unnatural way, which produces this, and many other irregularities and deviations from Nature among us. And, further, it is to be observed, that Man has passed through a greater

* Τα μιν οὐκ ἀλλὰ ζῶα μοιχαλὺς ποιεῖται τὴν τοῦ τοκευ τελευτήν· ἵς γὰρ ὀρίσται τοῦ τοκευ χρόνος· παρὶν, ἀνθρώπων δὲ πολλοὶ μὲν τῶν ζῶων. . . . Καὶ γὰρ ἑπταμήνη, καὶ οκταμήνη, καὶ ενναμήνη γίνονται, καὶ δεκάμηνα τὸ πλείστον. Ἐνταῦθα δ’ ἐπιλαυβανούσι καὶ τοῦ ἑνδεκάτου μηνός. Arist. Lib. vii. de Histor. Animal. Cap. 4. The months, among the Greeks and among the Romans, before the reformation of the Callender by Julius Caesar, were lunar months, which consist of 29 days, a half, and something more ; but, in computing by lunar months, they commonly assigned the round number of 30 days to a month, as is evident from a passage of Herodotus, Lib. 1. cap. 32. where he reckons that 35 months make 1050 days, which is precisely 30 days to the month ; so that, according to this way of computing, a woman in Greece must have gone very near one of our kalender months longer than one of our women, that is, a ninth part longer.

greater variety of states than any other animal. In his natural state, and in those stages of his progression that are nearer to that state than we are at present, I think I have shown that he was stronger, and bigger of body, than he now is in Europe: And, if so, I hold it to be a law of Nature, that, when the Animal is stronger and bigger, the time of the gestation of the female is longer. This is certainly the rule in animals of different specieses. A mare is much longer pregnant than a dog or a deer, as long as the women were in the heroic times; and an elephant goes eighteen months, or, at the least, sixteen *. And this rule, which holds in animals of different specieses, may be very naturally applied to an animal who is so different from himself in the several stages of his progression, that he may be accounted a different animal.

There is another mark of degeneracy in our species at present, which, I think, has also not hitherto been observed. It is this, that many of our females of rank, and some even of the lower sort, have not milk to nurse their infants. This, I am persuaded, never happens among animals in the natural state, and very rarely even among those that we have tamed. Now, I think it is impossible this could happen, if the female was not in a very bad habit of body, either by her own improper way of living, or from diseases and infirmities she has derived from her ancestors.

Thus, I think I have proved that men, in later times, are degenerated in three of the four articles I mentioned †, viz. health, longevity, and size of body: And, as to the fourth thing I mentioned, strength of body, I think it will follow of necessary consequence,

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that,

* This account of the gestation of an elephant I have taken from Arrian's *Indica*, Cap. 14. who appears to me to have been better informed concerning elephants than any other author, antient or modern. Among the moderns, an elephant is said by some to go two years, by others ten. See the French Encyclopedie, under the word *Elephant*.

† Page 118.

that, if men in antient times were healthier, longer lived, and of greater size, they were also stronger ; for, though it sometimes happen among us, that a man is of greater size in one respect than another man, I mean taller, and yet is a weaker man, that never happens among savages, who are always broad in proportion to their height : So that they are not, as we often are, the weaker for being tall ; which must be the case when there is not a proportional breadth.

C H A P.

C H A P. VI.

Of the Difference betwixt our Animal and Intellectual Natures.—These two often at variance with one another.—The Intellectual grows, and is nourished at the Expence of the Animal.—The Causes of our Body declining in the Civil State.—What is from God and Nature cannot be improved, but is made worse by Human Art.—The Change of Diet of Men has hurt their Bodies more than Clothes, Houses, or the Use of Fire.—Of the Eating of Flesh—first begun by hunters,—does not make Men stronger, but the contrary.—Flesh, if eaten at all, ought to be eaten raw.—Even our Vegetable Food not wholesome.—Of the Use of Wine.—More pernicious when drunk pure, than when mixed with Water.—Of excessive Venery of different Kinds, particularly in the East.—Of the Drinking of Spirits.—This, the most pernicious of all Vices—suppressed by the British Legislature, and restored.—Diseases without Names or Numbers, produced by those Vices.—Manufactures, and other Sedentary Arts, have bad Effects upon the Health and Strength of the People.—This appears from the Bills of Mortality.—Of Pestilential Diseases, which have come from the East, the native Country of such Diseases.—A most remarkable one in the Island of Sumatra, in the Year 1775.—Of the Leprosy.—Of the Small Pox.—Of the Venereal Disease—that Disease not from the West Indies, but from Africa.—Of the Use of Opium and Betle.—Of Tobacco.—Of the Pernicious Effects of great Towns upon the Health of the Inhabitants.—This appears from the Bills of Mortality.—Of the Indigence in rich Countries,

*tries.—Comparison, in this respect, of modern Times with Antient.
—No Poor Houses or Hospitals in antient Cities.—Degeneracy of
the Mind in Modern Times.*

THE reader, in the course of this work, will, I hope, always keep in view the distinction which I have made the foundation of my Philosophy of Man, betwixt his animal and intellectual parts. These two substances, being of natures very different, and therefore having different interests, are often at variance, and contend for mastery with one another. In the early part of our life, the animal is entirely predominant; and we are altogether governed by the two propensities, which belong to the animal nature, and which I have explained elsewhere *, Appetite and Anger. When we are grown up, Reason, which before did not appear, begins now to claim that superiority, which, by Nature, belongs to it. And here begins that state of the man, in which it is commonly said, that we are at variance with ourselves; and I observe that many of our philosophers speak in that way. This language would be altogether absurd, if we were truly but one substance; for there is no such thing in Nature as the same individual substance being divided against itself. But Xenophon was better taught by his master Socrates; for he, in that fine story he tells in the *Cyropedia* †, informs us, that we are two Selves, and therefore are frequently at variance with ourselves.

In the preceding chapters, the reader will be pleased to remember that I have been treating of our animal part, which, in the natural state of Man, is entirely predominant; and, therefore, it is no wonder that the body thrives so well, and that we are so much healthier, bigger, stronger, and longer lived, than in the civil state; for there our intellect exerts its power. And as, by Nature, what is less excellent,

is

* Vol. i. Book ii. Cap. 9. Page 127.

† Lib. v. In the conversation he relates betwixt Cyrus and the young man to whom he had intrusted Panthaea.

is made subservient to what is more excellent, therefore our intellect grows up, and is nourished, at the expence of our animal nature ; for it shall be shown, in the sequel, that the invention of arts, which has improved so much, and, indeed, may be said to have created our intellect, must, of necessity, have injured our bodies very much ; and it sometimes happens, that our nobler part requires the sacrifice of the Body altogether. In the preceding chapter, I think, I have shown, from facts that cannot be controverted, that the natural powers of the human body are much greater in the natural state than in the civil or artificial ; and, from these facts, I think the reasons may be collected why it is so. But, as I have promised to prove the thing likewise from its causes, I will bestow this chapter upon that subject.

And there is one general cause why all the improvements of art can be no improvements of the body, but the contrary : And it is this, that, in the course of the human progress, we are animals before we are men, beginning our progress in that way. Now, it is impossible to suppose that an all-wise and an all-good Being would have set us down on this earth, not provided with every thing that is necessary, both for our being and well being. That he has done so with respect to other animals is most certain ; for it is a fact that cannot be disputed, that all those animals are, in every respect, better in their wild and natural state, than when they are tamed and housed : And it cannot be supposed that the great and good Creator would have made so invidious a distinction betwixt us and other animals, as to have left man, the chief animal here below, even considered as an animal merely, destitute of what is necessary or proper for him, while other animals are so amply provided for.

Further,

Further, whatever is from God and Nature is perfect of the kind. Now, whatever is perfect, or best, is but one : Nor can we conceive two states of the same thing different from one another, and yet each of them best, and most perfect. To what is perfect, therefore, nothing can be added, nor any thing taken from it : Neither can there be any alteration in it, but for the worse. Every thing, therefore, that has been added by human art, taken away or altered, with respect to the animal life of man, must be for the worse.

And thus, I think, I have proved, not only from the effect but from the cause, and from the first of all causes, that all those inventions, by which we think that we have improved human life so much, are truly no improvements, at least of our animal part, but quite the contrary.

But there is a great distinction to be made among these inventions : For, if we had only sought protection from the weather in the hollows of trees, as the New Hollanders do, or, even if we had built houses, and carried about with us that little, close house, which we call clothes—nay, further, if we had made use of fire to heat our houses, and had even prepared our victuals with fire, the decline would not have gone on near so fast, if we had continued to feed upon the natural fruits of the earth : But, when we began to feed upon artificial fruits, raised, by the art of agriculture, from dung, (whereas the natural fruits arise from the natural manure of corrupted vegetables, which give to the earth an inexhaustible fertility *), the decline went on much faster ; and faster still, when we
took

* I am well informed, that, in some of the islands in the West Indies, when the ground was first broke up, it yielded 30 crops of sugar running, without manure, or change of the plant, whereas, in some islands that have been much cultivated, such as Barbadoes, they are obliged to manure and change the plant every year. This I learned from a gentleman of the name of Simpson, who was employed by Government to survey the islands ceded to us by the peace 1763.

took to a diet still more unnatural, and became carnivorous animals, which, as I have observed, the antedeluvian Patriarchs, who lived so long, were not.

This change of diet, which, I am persuaded, was at first from necessity, and not of choice, changed the very nature of man, and made him of a tame and gentle animal, such as the Oran Outan is, an animal of prey; for it was in this way that, I believe, the first flesh was eaten. But, afterwards, it was eaten, in what I rather think a worse way, though it be now the common way of procuring it; for, instead of killing wild animals, as the beasts of prey do, we tame animals, bring them under our roof, nurse their young, and then we eat both the parents and the offspring. This appears to some Tartar nations to be so contrary to the laws of hospitality, that, though they eat the game they kill, they will not eat their cattle, which they consider as under their protection*. I know many are of opinion that the flesh diet, however unnatural I may think it, gives greater strength than the vegetable. But this opinion is contrary, both to experience, and to the reason of the thing: The Oran Outan of Angola, who is so much bigger and stronger than we, eats nothing but vegetables; and the Elephant, so much bigger and stronger still, feeds only on herbage, and on the leaves and branches of trees: And, as to civilized Men, it is a fact well known, that the Arabian porters at Bassora, whose food is dates, and their drink water, will carry a very much greater weight than any English porter, who feeds upon flesh, and drinks beer†.

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* This is related by a Tartar historian, Abul Gazi Chan, in his Genealogical History of Tartary, a book, I think, of great curiosity, and undoubtedly the most authentic history extant of that great country.

† I am informed by a friend of mine, who has been there, that one of them, when he is supported by a man on each side of him, will carry a ton of wine, that is, twenty hundred weight, upon his back, which he says he has seen.

And the Gentoos of India, who live upon rice and water, though a slender people at present and of small stature, can labour more, either in drawing boats upon the rivers or canals, or in carrying men in palanquins, than, I believe, any people in Europe. And, with respect to the reason of the thing, as, I think, I have proved that it is not the natural diet of man, it will follow, of consequence, that he cannot thrive upon it, in size and strength, any more than in health and longevity. It is true, the nature of man is so pliable, that it can suit itself to that or even a worse diet, such as that of the Esquimaux upon fish, and stinking fish too. But it will not from thence follow that it is good for them, though it becomes very pleasant to them : But so things the most pernicious are made by habit. Nor is man singular in this ; for other animals may, by habit likewise, grow fond of what is certainly not their natural food. I have heard of horses that ate flesh ; and there was a sheep in my neighbourhood in the country, who being brought up in the house by the hand, learned to eat flesh, and even the flesh of its own species, and became so fond of tobacco, that, after he was restored to his natural life with the flock, he would come up to a gentleman in the field, and take a piece of tobacco twist from him. And yet, I believe, no body will maintain, that either flesh or tobacco is proper food for a sheep, or that the animal will thrive upon such a diet. Further, I say that, if flesh is to be eaten, it ought to be eaten in the way the animals, that are carnivorous by nature, eat it ; that is, raw, and warm with the animal life, as Mr Bruce says the Abyssinians eat their beef. And he avers, from his own experience, that it is much easier of digestion, eaten in that way, than when prepared by Fire. And the wild girl I saw in France, told me that the first flesh that she ate roasted or boiled, lay upon her stomach like so much lead, and threw her into a very dangerous disease, of which she recovered, chiefly by sucking the warm blood of chickens.

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I do not know whether I should not add to flesh the use of salt. It is reckoned by Sallust, the Roman historian, to be one of the *irritamenta gulæ*; and the Baron Hontan says it was one of the three reasons which a Huron gave why Frenchmen did not live so long as they. The other two were, the use of wine, and the excessive use of women.

I have already observed, that even our vegetable diet is not wholesome, because the vegetables we eat are not the natural fruits of the earth, but raised artificially, from the dung of animals. This dung, by which they are nourished and grow, must be a part of their composition; so that, in eating such vegetables, we must eat dung, according to the observation of the King of Ethiopia to the ambassadors of Cambyfes King of Persia, who having told him that the Persians lived upon wheat raised in the ordinary way of culture, he said he did not wonder they lived so short a time, as they fed upon dung *. This makes the garden vegetables, such as turnips, in the neighbourhood of a great town, taste so much of the dung, as to be offensive and disgusting. But, even in the corn that is raised in the fields, there must be a certain quantity of that same filthy nourishment of the plant, and which, of necessity, must, in some degree, go to our nourishment. Even grass that has been very much dunged, as the meadows about London are, will make the flesh fed upon it neither wholesome nor pleasant to the taste: And the milk of a cow fed upon such grass, or the butter that is made of it, will hardly keep sweet twenty-four hours.

The next invention of luxury was the use of wine; a thing more unnatural still, not being practised by any animal in the natural state. It is likewise believed by many, that wine, and other fermented liquors, give strength. But Homer knew better; though he speaks

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* Herodot. Lib. iii. Cap. 21.

fo much in praife of the pleasure of drinking, that he was suspected himfelf to be a lover of wine, as Horace tells us :

Laudibus arguitur vini, vinofus Homerus.

For he makes Hector fay to his mother, when ſhe offered him wine, upon his coming from the battle, to which he was to return, that wine weakened men, and made them unfit for war *. And, therefore, I hold that the Carthaginians were in the right, who, as Plato tells us †, never drank wine when they went to war, or were to beget children. But wine, or vinous liquors, are, by habit, become fo neceſſary to us, that, I am afraid, our men would not fight at all without vinous, or, what is worfe, ſpiritous liquors : And, I am afraid, many of our children are begotten when we are drunk, or, at leaſt, intoxicated with wine. But, if we are to drink wine at all, we ought certainly to drink it, as all the polite nations of old did, diluted with water, and not pure, as the Barbarians drank it ; for, that way drunk, it does not inflame fo much, and goes off much eaſier.

What I ſhall next mention, is the exceſs of a thing that is both natural and neceſſary for the continuation of the ſpecies ; I mean the uſe of women. In the natural ſtate, men propagated, as other animals do. The females had their ſeaſons ‡ ; and, at that time, no doubt, the ſtrongeſt, and moſt courageous of the males, would have the uſe of the moſt females, which is wiſely contrived by Nature, for the purpoſe of the better preſervation of the race : But thoſe ſtrongeſt males could not have very many, as the ſeaſon, I imagine, did not laſt long, not ſo many as to do them any hurt. Whereas,

after

* Iliad. ζ. Verſ. 264.

Μη μοι οἶνον κείρε μελιφρονα, ποτνια μητρη,
Μη μ' απογυνωσῃς μένιος δ' ἄλλης τε λαθάραι.

† Lib. ii. De Legibus, *in fine*.

‡ See Origin and Progreſs of Language, Vol. i. page 452. Second Edition.

after societies were instituted, and wealth and power introduced among men, the best men of the nation having most wealth and power, made a property of a great number of women. This appears to have been practised, from time immemorial, in the East, and has contributed more to the degeneracy of the Asiatic nations, than any thing else ; for they do not hurt themselves by excess of wine, as we do ; though, if we can credit what Philo Judæus relates, the excess in venery must be very much more hurtful, since, according to him, even the most moderate use of it consumes a considerable part of the animal life *. And it must be still more pernicious, if it begins very early, as we know it does among the Orientals †. And there is a very extraordinary fact, which Mr

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Bruce,

* He says, Ἀνδρῶπος ὀγδοῶ μέρει ψυχῆς ὁ καλεῖται γυνὴν πρὸς τὴν τοῦ ὁμοίου σπορῶν χρῆται, Philo Judæus. περὶ ἀφθαρσίας κόσμου, p. 955. From whence he takes this calculation he does not say ; but, as he was very learned, it is likely he found it in some antient book, which is probably now lost.

† There is published, by the greatest traveller of this age, and, at the same time, an ingenious and learned man, and who appears to me to have been a very accurate observer, I mean Kaempfer, a book, which he calls *Amoenitates Exoticæ*, where he gives an account of the education of the heir apparent of the crown of Persia, and which, I believe, will apply, perhaps in a lesser degree, to the education of the children of all the rich and great in that country. He is brought up, he says, in the *Haran*, or house of the women ; and before he has attained to the age of puberty, they allow him the use of women, without any restriction of the number mentioned by the author. And, in order to enable him to enjoy them, they give him pills, made up of opium, musk, amber, and aromatics ; or they administer to him a potion of much the same ingredients. This potion, he says, is of daily use among the Persians, and is preferred by them to every delicacy of eating. It has the effect of raising their spirits, giving them a pleasant delirium, and, at the same time, inciting them to venery, p. 19. This the author appears to relate from good information, having been four years at the court of Isfahan, or in the neighbouring provinces, p. 45. and of the train of the Swedish ambassador ; and being by profession a physician, he would no doubt

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Bruce, the traveller in Abyffinea, relates, and of which he fays he is fure from an inquiry he made into the ftate of 150 families, that, in Arabia, there are *four* daughters born for *one* fon. Now, I believe that is the effect of their early and exceffive ventry : And, as the people of fafhion among us are more addicted to this excefs than the lower fort, I hold that to be the reafon why, among them, there are more daughters procreated than fons*.

Not only the natural ufe of women has in this way hurt the human body, but, as if that was not fufficient, other methods of ventry have been invented, altogether unnatural, and more pernicious. Of this kind is the ufe of males, inftead of females, which began, as it appears, among the Greeks, about the time of Laius, father of Œdipus, as Plato informs us †. For the Greek genius appears to have been the moft inventive, both of good and of evil, that ever exifted. From the Greeks, Herodotus tells us, this vice came to the Perfians ‡ : And, it is likely, from the fame fource, it was derived to the Ruffians, among whom it is common enough at this day ; and
has

be inquisitive about fuch things. The confequence of this education of the princes, and their manner of living when they come to be men, is, that they feldom attain, fays our author, to the age of forty, p. 27. He tells us alfo, that they have got the venereal difeafe in that country, which the dancing women there, as well as in the empire of the Mogul, carry about with them, and beftow very freely among their customers. And he mentions a Sophy, who died while he was there, of a pox, which he got from one of thefe girls, p. 29. Now, I fhould ask whether it be poffible, without a miracle, that the race of men fhould be preferved in that country, fuch as it was in antient times ?

* Aristotle fays, (Lib. vii. Cap. 16. *De Republica*.) that, when perfons too young marry, the offspring is little, weak, and more females than males. And there is the greateft reafon to believe that the fame thing will happen if the parents are weakened by any kind of debauchery, particularly by early and exceffive ventry, to which we know the Arabians, and all the people of the Eaft, are very much addicted.

† *De Legibus*, Lib. viii. p. 836. Edit. Serrani.

‡ Herodot. Lib. i. Cap. 135.

has travelled as far east as Kamtschatka, where the savages have always, among their seraglios of women, one male dressed in woman's clothes*.

I pass over other monstrous kinds of venery that have been practised, to speak of one, which, perhaps, does more mischief in our time, and contributes more to the weakening of the race of the better sort of men, than any other that I have mentioned, because it begins in the most early age and is practised in the most secret manner. It is well known to be the vice of boys at school; and more need not be said of it, except that it appears to be a vice peculiar to modern times.

There is another thing peculiar to these times, and which, I believe, is still more pernicious, as the influence of it is much more extensive, especially among the lower sort of people; what I mean is the use of spiritous liquors; a thing so ruinous and destructive to the human species, that, if all the devils were again to be assembled in Pandemonium, to contrive the ruin of the human species, nothing so mischievous could be devised by them. The effect of them upon the bodies of other animals is well known. If we have a mind to stunt the growth of a puppy, so as to make it a dog fit for a lady's lap, we have no more to do than to give it brandy; and the same effect, no doubt, the same liquor will have upon the human body. And, I am persuaded, the diminution of size, among the people of this island, living at a distance from the wealth of great cities, such as the Scottish Highlanders, is chiefly owing to the use of spiritous liquors; and so, I know, they think themselves.

About the year 1736, the use of spirits, by the lower sort, women as well as men, in London and the neighbourhood, was come to that height in which it is represented, and, as I have been told, not much exaggerated by Hogarth in his prints. And I remember an
expression

* See L' Abbé Chappé's Travels in Siberia.

expression in a pamphlet, published about that time, on this subject, in which it was said, speaking of the effect of the drinking of spirits upon the race, *that the children were conceived in gin, and nourished with that poisonous distillation in the womb, and at the breast.* At last, the abuse became so flagrant, that the parliament took notice of it; and there was an act passed, with a preamble, which, I think, does honour to the British legislature, and which is in these words :

An Act for laying a Duty upon the Retailers of Spiritous Liquors, and for licensing the Retailers thereof.

“ Whereas the drinking of spiritous liquors, or strong waters, is become very common, especially amongst the people of lower and inferior rank, the constant and excessive use whereof tends greatly to the destruction of their healths, rendering them unfit for useful labour and business, debauching their morals, and inciting them to perpetrate all manner of vices ; and the ill consequences of the excessive use of such liquors are not confined to the present generation, but extend to future ages, and tend to the devastation and ruin of this kingdom : For remedy whereof, may it please your most excellent Majesty, that it may be enacted, and be it enacted, by the King’s most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons in this present parliament assembled, and by the authority of the same *,” &c.

This act suppressed the abuse for some time ; for the duties imposed by it, on the retail of spirits, were so high, as to amount to a prohibition. But, in a few years after, money was wanted ; and, according to our method of raising money upon the vices of the people, a great part of the duties was taken off, that the people might

* Anno Nono Georgii II. Regis, Cap. 23.

might be enabled to purchase it ; and so the vice was restored, and now continues, and is increasing, not only in London and its suburbs, but all over the country, and to so great a degree, that, if a remedy is not applied, it will not only shrivel and contract the size of the human body, but will absolutely extinguish the race, in not many generations. And we may already begin to calculate, as a French author does with respect to France*, in how many years there shall be no inhabitants in Britain.

What diseases all those things that I have mentioned must produce among a people, it is impossible to say ;

*Non, mihi si linguæ centum sint, oraque centum,
Ferreæ vox.*————

And, indeed, they appear to me to be without number or name : For our Doctors have not only not found out cures for them all, which I believe to be impossible, but they have not, even with the assistance of the learned languages, found out names for them all.

When we compare, in this respect, antient times with modern, we find the difference prodigious. From the most antient, and best vouched record of human affairs, I mean the books of Moses, it does not appear that, in the antient times of which he treats, any died of disease, not even children, of whom so very great a number die among us ; for, even long after the Flood, and as late as the days of Jacob and his twelve sons, though we have a very particular account of the children of all those sons, we do not find that any of them died under age : For the two sons of Judah, who died young, lived to be men, and then were killed by the Lord for reasons mentioned in the text. †. The next most antient record are the poems of Homer, where we find that, though the Greeks, at the time of the Trojan war,

* The title of this pamphlet is, *Les enterêts de la France mal entendus*.

† Genesis, Chap. xxxviii. Vers. 17.—10.

war, lived in such a way, as must have made their lives much shorter, than when they were in the natural state, eating so much flesh as they did, drinking so much wine, and using their female captives so freely ; yet a death by disease was so very rare among them, that it was thought to be a miracle, or to happen by the particular act of a God ; for the men were said to die by the darts of Apollo, and the women by those of Diana ; and he mentions one island, where, it seems, the people were more temperate, and lived more in the natural way : And there, he says, nobody died of disease, but only of old age ; and even then so easily, that, he says, they were killed with the *gentle* darts (this is the epithet he gives them,) of the deities above mentioned †. Even as late as the days of Plato, it appears that the diseases of which men died, were, for the greater part, violent, acute diseases, such as we know strong bodies are liable to ; and there were, I am persuaded, few men at that time, who were years a-dying, as we are, of chronical diseases. Such diseases, however, were then known : But Plato thinks it is an abuse of the medical art, to apply it to the lengthening out the miserable lives, or, rather, as he says, the *long deaths* of such patients ; and he names the first physician who, having himself a bad habit of body, applied his art to prolong a life which he had better been quit of ‡. The Spartans, when at any time a weak, delicate infant was born among them, which certainly happened very rarely, (but sometimes Nature will err, that is, will go out of her ordinary course), did not rear it, but put it out of the world in good time.

There is one thing among us, that must add very much to the diseases and weaknesses of the better sort of people, and that is the
indolence

* Odyss. O' Vers. 402.

† Lib. ii. *De Republica*, p. 405. et seq. *Edit. Serrani*. The whole passage is very well worth the reading. He tells us, there, among other things worthy of notice, that, in the heroic age, when the bodies of men were in a good habit, that part of physic which is called *Diaetetic*, was not known ; and, accordingly, we see Machaon, himself a physician, drinking wine immediately after he was wounded.

indolence and inactivity of their lives. The youth of Rome were able to support a great deal of luxury and debauchery, by the violent exercises they took in their *Campus Martius*, and in the River as well as in the Field. And the Athenians, by the exercises of the *Palæstra*, which they all practised more or less, old as well as young, were enabled to indulge themselves to a great degree, both in wine and venereal pleasures, without being much hurt by them : Whereas our youth, living upon a diet which requires more than ordinary labour to work it off, and enjoying, at the same time, all other pleasures they can think of, instead of the severe exercises of the Greeks and Romans, spend their nights, as well as their days, in card-playing, an occupation equally ruinous to Body and Mind. And even the employment of the lower sort of people among us, in manufactures and other sedentary arts, often carried on in places very unwholesome, must have a very bad effect, both upon the health and strength of men. And, accordingly, the difference is visible in the looks of the inhabitants of a manufacturing town, compared with the looks of the inhabitants of the country, or of a country village : And the difference in the article of mortality is prodigious ; In Manchester there dies every year *one of twenty-eight* ; but, in Monton, a little hamlet or township about six miles from Manchester, *one of sixty-eight*. This I am assured of by a learned physician in Manchester, Dr Percival, who made the calculation upon a medium of ten years in each of the places.

But, as if the diseases, which our vices and unnatural way of living must of necessity produce, were not sufficient, there are others imported from abroad, which are not natural to us, but the produce of countries, where civility, and, by consequence, disease, are very much older than any where in Europe ; I mean Egypt, and the East. From those countries have come all those dreadful plagues, which at different times have made such havock in Europe. The plague of Athens, so accurately described by

Thucydides, began in Ethiopia, travelled through Egypt, Lybia, and a great part of Asia, and came at last to Athens, where it destroyed great numbers *. But a more terrible pestilence than this, and much farther spread, happened in the time of Justinian the Emperor, about the middle of the sixth century. It is described by three cotemporary historians, Procopius, Evagrius, and Agathias : And, from their account of it, it was, for the extent of the countries it ravaged the destruction it made, and the time it endured, the greatest calamity that ever befell mankind, so far, at least, as we know. Procopius tells us, that it went all over the world known at that time, even to the extremities of it, and, he says, went near to destroy the human race †. Evagrius says it lasted fifty-two years ‡, visiting different countries at different times and some countries twice ; particularly, it was twice in Constantinople. It began in Egypt, as Procopius informs us ; from which country all the plagues, that in later times have infested Europe, originally came ; though, from all the accounts of Egypt which we have from antient authors, and particularly from Herodotus and Diodorus Siculus, who have given us a pretty full and circumstantial account of the history of that nation down to the Persian conquest, it does not appear that in those antient times they were ever afflicted with that calamity, unless when it proceeded immediately from the hand of God, for the purpose of delivering the Israelites from bondage. But the nation was much younger in those times, and their laws and discipline in full force ; and physic appears to me to have been better understood and practiced there than in any other part of the world : Whereas, in later times, when the country was inhabited by a mongrel race of people, without arts and sciences, or good morals, and without that attention to diet and to cleanliness, which I hold to be absolutely necessary to prevent pestilential

* Thucydides, Lib. iii. Cap. 47

† Lib. ii. de Bello Persico, Cap. 22.

‡ Lib. iv. Cap. 28

tilential diseases in ſuch a country as Egypt, it was no wonder it became the ſource of plagues to all Europe.

But, as Europe had been deſtined by Nature to be the receptacle of all the diſeaſes in the world, it was not from Egypt and Ethiopia only that it was afflicted with this ſevereſt ſcourge of God, but from the remoteſt part of the Eaſt. From the kingdom of Cathay, in China, there came a plague, which over-ran all Aſia and Africa, and at laſt came into Europe, in 1346, and made ſuch havock there, that, in many places, it deſtroyed a fifteenth part of the inhabitants, and, in ſome places, many more ; particularly, in France, it was computed to have deſtroyed an eighth part, and, in England, a third, or, at leaſt, a fourth part *. This and the other plague under Juſtinian are ſuch calamities, that, though a nation in its youth and vigour might recover of them, I do not think it was poſſible that nations, ſuch as the European were at that time, could ever repair the loſs ; and, therefore, I hold that, even at this day, Europe feels the deſolation it then ſuffered.

Such countries as Egypt and the Eaſt, having been ſo much longer in a ſtate of civilization than Europe, may be ſaid to be the *native* countries of diſeaſes. There the plague dwells, and from thence it comes to Conſtantinople, out of which it never is ; and the neighbouring provinces of Macedonia and Walachia are very ſeldom free of it. In one part of Aſia, I have heard of a plague, ſuch as never was heard of, I believe, any where elſe. It was in the iſland of Sumatra, where we have our ſettlement of Bencoolen. It happened in the year 1775, during their dry ſeaſon, which is always more or leſs unhealthy ; for there blows at that time a land-wind, which coming from

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* See the French Encyclopedie, under the article *Peſtilence*.

the inner parts of the island, that are full of marshes, is loaded with putrid vapours ; whereas the wind from the sea, though it brings a great deal of rain, makes their healthiest weather. In that year, the drought was remarkable ; so that a great part of the marshes were dried up ; the exhalations from which produced a fog that lasted for six weeks, and was so thick that they could see nothing that was at any distance. It was so pernicious, even to the vegetable life, that it destroyed every green thing about Bencoolen ; and, as to the animal life, great numbers of the natives died of it, and of our factory more than two thirds. It raged also among the buffalos and horses. But, what was most extraordinary, and distinguishes it from all other plagues of which we read, is, that it destroyed even the fishes of the sea, which were cast up upon the beach, dead, in heaps. Whether it also affected the wild animals of the island I could not learn ; but I think it is highly probable that it did ; though we do not read of any plague affecting them, except the plague among the cattle in the Alps, which, if we may believe Virgil, destroyed even the animals in the natural state *. This account of the plague in Sumatra I had from two gentlemen, one of whom was in the island at the time, and the other, who is a physician by profession, had been there the year before, and returned to it the year after, and was there altogether twenty years, longer, I believe, than any European ever lived there †.

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* See Pages 78. and 119.

† This gentleman told me, that, one year he was there, a half of the Factory died ; and, in one month, he saw a half of the garrison buried. What prodigious numbers of men does trade destroy, and particularly those distant settlements, for carrying it on in climates and countries so adverse to our temperament and constitution, as Africa, the East and West Indies are, especially when these settlements must be protected by a military force ?

These pestilential diseases do not only kill the greatest part of those who catch them; but such as recover are very much weakened by them. A disease of this kind, mentioned by the northern historians, and called by them the *black death*, which almost desolated Sweden, Denmark, Norway, and Russia, in the end of the fifteenth century, is said to have weakened the race of men so much in those countries, that the people have never since been of the size and strength they were formerly.

But, besides these plagues, which lasted only for a time, there have come diseases from those countries, that have been permanent, and some of them remain to this day. The first I shall mention is the leprosy, which came from Egypt, Syria, and Judaea, and which was one of the blessed effects, among many other of the Crusades, and the only fruit we reaped from that religious knight-errantry, to compensate such prodigious loss of men. It was once so common all over Europe, that Mathew Paris says, there were no less than 18,000 hospitals for lepers in Christendom; and it appears from the testament of Lewis VIII. of France *, that there were 2000 of these in France. How many there were in Britain I cannot say: But I know there were many in England; and Harry II. if I am not mistaken, mortified a great sum of money for maintaining them. It appears, therefore, that this plague was not only far spread, but lasted long. At present, I believe, there are but small remains of it, unless we reckon the scurvy and the King's evil to be specieses of it. If so, instead of diminishing, or dying away, it is increasing, I believe, more than ever: For the last of these diseases is becoming more common every day, at least in Britain; and I am assured by the physicians, that nine parts of ten, of consumptions, which destroy such numbers among us, are of the scrophulous kind.

The

* See the French Encyclopedie, under the word *Leprosie*.

The next disease I shall mention undoubtedly continues to be still a standing plague among us ; I mean the small-pox, which came likewise from the East, and particularly from Arabia ; and it is said that the Arabians brought it with them into Spain, from whence it has been propagated all over Europe. It is the most universal plague which ever has been among men ; for very few escape it : And it was at first so mortal, that it was computed to destroy one fourteenth part of the human race * ; and those that escaped death had their faces disfigured, and were no doubt weakened in their persons. Where inoculation is used, this disease is seldom mortal ; but I cannot be persuaded that it does not, in some degree, weaken and impair the habit. The remedy of inoculation came originally from Circassia ; for the disease has spread all over Asia, even to China.

The last of these permanent diseases I shall mention, and which I call plagues, because they are contagious, has contributed to the ruin of the human body more, and to the degeneracy of the race, than any I have yet mentioned, because it attacks the very feat of generation. By this the reader will know that I mean the venereal disease. It is generally believed to have come from the West Indies. But, if the fact be true, and I never heard it disputed, that it made its first appearance in Europe at the siege of Naples, in 1493, it is impossible it could have come from thence ; for Columbus did not set out for his discovery of the West Indies till the month of August 1492 ; and, besides, there is not the least probability that it should have been in a country where men lived in the greatest innocence and simplicity of manners, and which, from the state of civilization the people were in, appears to me to have been but newly inhabited. I think, therefore, it must have come, like the other diseases I have mentioned,

* Encyclopedie, under the article *Varol Petit*.

mentioned, from some country that had been long in a state of civilization, and where vice and folly were grown old. And the most probable account of its native country is what I heard from a learned physician in Paris, Monsieur Jussieu, (who, I am sorry to hear, is dead within these few years), that it came originally from Africa, the coast of which had been discovered, and, I believe, settlements made upon it by the Portuguese, some years before the discovery of the West Indies. And he said, that it was by the Portuguese brought into Europe, and by the negro slaves carried to the West Indies and America; from whence, no doubt, it would be brought back to Europe; for it is the effect of commerce to keep up a constant circulation of vice and disease, and to make the vices and diseases of one country the vices and diseases of all. In support of his opinion, he affirmed it as a fact, that the disease, at this day, was to be found in the greatest virulence and malignity among the negroes on the coast of Africa.

But, though I don't doubt that the pox is a native of Africa, I think it is highly probable that it is a native also of India, a country much older in civilization than Africa; for, according to my information, it has been there of a very long time, and with a force and vigour, such as every disease, as well as plant or animal, has in its native country, greater than any where else. Neither do I think it at all probable that it has been imported into India from Africa or Europe, though it is very possible that it may have travelled from India to China, where it reigns also.

This disease, unknown in antient times, is as malignant as it is wide spread, and particularly in hot countries, in one or more of which, I am persuaded, it first began. There it is hardly ever radically cured: Whereas, in the cold countries, where at first it was
very

very mortal *, they have found methods of curing it, which they cannot practice successfully in warmer regions ; though, I am persuaded, that, let it be ever so well cured, it will leave behind it a weakness that must go to the race. But, in the hot countries, where it is seldom mortal, it is never cured, but goes on from generation to generation, and spreads so, even among the lower sort of people, that, I am told, in Italy, Spain and Portugal, you can hardly find a woman to whom you can safely give a child to be nursed : And the consequence is, that the stature of the men in those countries, particularly of the better sort, is very much diminished, much more than among us.

Besides those vices and diseases I have mentioned, there is in the East the use of Opium and of Betle. Of the first of these we have some experience in Europe ; and we know that its effects are as pernicious as those of spirits. As to betle, it is one bad thing, and, perhaps, the bad thing, that we have not imported from foreign countries. It is the leaf of a plant like a vine, compounded with the kernel of a nut, which the people of India and its islands chew, not unwholesome in itself, I believe, except by the excessive use of it : But they chew it constantly, and through their whole lives from their infancy ; and, as they mix it with quicklime, to give it a hot and pungent taste, and sometimes with opium, it must be exceedingly pernicious, when so immoderately used.

In those countries they all smoke tobacco ; and the rich and luxurious among them mix opium with it ; all which, joined with the immoderate use of women, weakens them so, that they grow soon old, and very few of them reach to the age of sixty.

Tobacco

* When it first came into Europe even Kings died of it ; and, among others, Francis the First of France, the most heroic King of modern times, to whom Harry Stephen has very properly applied the eulogium made by Homer upon Agamemon,

Αμφοτερον, βασιλευς τ' αγαθος κρατερος τ' αιχμητης.

Iliad. Γ. V. 179.

Tobacco we got from America ; and it is now used by all ranks and orders of men in Europe. It is a thing of universal use over the world, more universal than even corn or rice, or than any thing else that we know the earth produces ; and yet I heard an eminent physician, who is lately dead, I mean Sir John Pringle, say, that it is as pernicious as spirits. In this he may have exaggerated a little ; but, as hardly any thing is indifferent in human life, I believe, even the moderate use of so unnatural a thing is not good, and the immoderate use of it pernicious.

If vices and diseases, and an unnatural way of living, must necessarily weaken men, though living in the country and in single houses, or in hamlets and small villages, much more must it do so in great towns, where trade and sedentary arts are carried on. In such towns, the air, fouled with the breath of so many animals, and impregnated with exhalations from the dead, the dying, and things corrupted of all kinds, must be little better than a slow poison, and so offensive, as to be perceptible by the sense of those who are not accustomed to it ; for it is said, that the wandering Arabs will smell a town at the distance of several leagues. In this country it is well known that our cottagers, who are driven, by the avarice of landlords and great tenants, into towns, to seek for a livelihood there, are very soon destroyed by the change of air and manner of life. And, even among those who have been born and brought up in towns, the mortality is very much greater than in the country, as in the instances I have given from Birmingham and the neighbouring village of Monton *. And the common rate of mortality, in the several great towns in Europe, is *one* out of twenty-five or thirty ; whereas, in the several countries of Europe, it is *one* out of forty-five or fifty. The destruction of children, particularly in

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towns,

* See p. 185.

towns, is remarkable ; and I was well informed, that, in an hospital in London, where they take in children, out of seventy-four there died seventy-one in a year.

That these vices and diseases must weaken the individual, there can be no doubt ; and I think there is as little that it will weaken the race, unless we believe that it is a matter of mere accident whether men beget weak or strong children. What, then, must be the consequence, if vices and diseases, and the most unnatural way of living, shall go on from generation to generation, for hundreds, perhaps, thousands of years ? In what condition must men be that have the vices, diseases, and weaknesses, of ten generations upon their backs ? yet, I am afraid, that is the case of all the present inhabitants of Britain, more or less, but particularly of the families of our nobility and gentry.

Besides all those evils of modern times, which I have mentioned, there is, in some countries of Europe and particularly in England, another evil, peculiar to civilized countries, but quite unknown in barbarous nations. The evil I mean is indigence ; and the reader will be still more surpris'd, when I tell him, that it is greatest in the richest countries : And, therefore, in England, which, I believe, is the richest country in Europe, there is more indigence than in any other ; for the number of people that are there maintained upon public or private charity, and who, therefore, may be called *beggars*, is prodigious. What proportion they may bear to the whole people, I have never heard computed ; but I am sure it must be very great.

And I am afraid, in these countries they call rich, indigence is not confined to the lower sort of people, but extends even to the
better.

better sort : For such is the effect of wealth in a nation, that (however paradoxical it may appear,) it does at last make all men poor and indigent ; the lower sort through idleness and debauchery, the better sort through luxury, vanity, and extravagant expence. Now, I would desire to know, from the greatest admirers of modern times, who maintain that the human race is not degenerated, but rather improved, whether they know any other source of human misery, besides vice, disease, and indigence ; and whether these three are not in the greatest abundance in the rich and flourishing country of England ?

I would further ask these gentlemen, whether, in the cities of the antient world, there were poor's houses, hospitals, infirmaries, and those other receptacles of indigence and disease, which we see in the modern cities ? and whether, in the streets of antient Athens and Rome, there were so many objects of disease, deformity, and misery, to be seen, as in our streets, besides those which are concealed from public view in the houses above mentioned. In later times, indeed, in those cities, when the corruption of manners was almost as great as among us, some such things might have been seen, as we are sure they were to be seen in Constantinople under the later Greek Emperors *. And it may perhaps be some comfort to the modern reader, to be informed, that even in antient Athens a mad democracy, which then governed that state, had, by their rash counsels and extravagant projects, reduced the people to such indigence, that some of the citizens were not ashamed to ask money from passengers in the streets ; a fact I could not have believed,

B b 2

except

* See Page 113.

except upon the authority of a cotemporary writer, himself an Athenian and then residing in the city *.

Thus, I think, I have proved, not only that there is a degeneracy in the human body, in size and strength, as well as in health and longevity, constantly going on in the state of civilization, from the most antient times; but, I think, I have shown the causes, why it not only is, but must be so. Those who maintain the contrary opinion, if I could suspect them of any religion, I should think they were superstitious, and believed that God Almighty interposed, in a miraculous manner, to preserve the human race, which otherwise must be destroyed, at least, in the greatest part of the known world, and would be in the whole of it, if we Europeans could carry our vices and diseases to every part of it, as we have done to a great part of it.

* Isocrates, in *Areopagitico*, versus finem. This Oration, together with the Oration *de Pace*, I would recommend to the serious study of all the admirers of popular government. If ever there was a people on earth fit to govern themselves, it was the Athenians; the noblest people, in my opinion, that ever existed, excelling in arts and arms, generous and high minded, and, at the same time, the acutest and cleverest people in the world: Yet, in those two Orations, it is clearly shown, that they were undone, by the people pretending to govern themselves; for Virtue there may be in a people, but Wisdom there never was nor ever will be.

C H A P.

C H A P. VII.

Recapitulation of what has been said of the Body of the Natural Man—

No increase of Size in the Civilized State.—In that State, Man, by Art, may excel in certain Exercises.—Of the Mind of the Natural Man;—the same with the mere Animal Mind.—The Powers of that Mind considered.—Man more perfect in his Animal Nature than other Animals.—Of the Tranquility of his Mind in that State.—Of the Golden Age in Greece and Italy.—This State not a State of perfect Felicity, the Intellectual Pleasures being wanting.—Gymnosophists in India in a more happy State.

IN the preceding Chapter, I think, I have shown, that Man, living in the natural state, is healthier, longer lived, stronger and larger of body, than the same animal living in a state of arts and civility. I say the same animal; for I do not maintain that all men in the natural state are as big as the Pongo, or great Oran Outan of Angola, or as the Patagonian; but, on the contrary, I hold, that there is by nature as great a difference in size in our species, as there is among other animals, and particularly among dogs; for it would be most extraordinary, if, in the most various animal upon this earth, there was not found the common variety of great and small. The natural man, therefore, I say, is of the size of that race of men to which he belongs; and I say further, that, if he
has

has food sufficient in the natural state, no care or culture, in a state of art and civilization, can add one inch to his stature : And still less can it make him healthier, or longer lived ; for it is true what the Poet says,

God never made his works for Man to mend.

At the same time, it is true, what I before observed *, that, in the civilized state, Men, by the constant use of violent exercise, especially if they are directed by skilful masters, such as the παιδοτριβή was in the antient *Gymnasiums*, will very much improve their natural strength and agility, and be able to do things that an Oran Outan could not do, though of greater natural strength and agility. But there is one feat of agility, which men in the natural state perform much better than any men in the civilized state I ever heard of ; and that is climbing. The savage girl I saw in France clumb a tree like a squirrel ; and so did Peter the Wild Boy, when he first came to England. And the reason why they do so, is, that they practice that exercise very much, for the purpose, either of saving themselves from wild beasts, (which was the case of the savage girl, who told me, that, in her travels through the woods, she always, for the greater security, slept in the top of a tree), or, of food, which, I believe, was Peter's reason for climbing, as he fed so much on the leaves of trees.

There is one thing further to be observed, concerning the Body of the Man of Nature, that the animal life, being much stronger in him than in the civilized Man, he can bear wounds, hurts, and bruises, much better ; and it is very much more difficult to kill him. We have no experience of this with respect to the Oran Outan, who is more in the natural state than any other man we know.

* Page 76.

know. Next to him are the inhabitants of the Ladrone or Marianne Islands, who have, indeed, the use of speech ; but they do not wear clothes, have not the use of fire, nor eat flesh, but subsist entirely upon vegetables, with the addition of what fish they can catch. They are, as I have said *, a very strong and healthy race, above seven feet in stature, and so active, particularly in the water, and so difficult to be killed, as to us appears incredible : But the following facts are attested by an eye-witness, Captain Cowley, one of our circumnavigators in the end of the last century ; and I will relate them in his own words. ‘ We took, ’ says he, ‘ four of these infidels ‘ (meaning the inhabitants of one of the Ladrone Islands,) prisoners, ‘ and brought them on board, binding their hands behind them ; ‘ but they had not been long there before three of them leaped over ‘ board into the sea, swimming away from the ship with their hands ‘ tied behind them. However, we sent the boat after them, and ‘ found that a strong man, at the first blow, could not penetrate their ‘ skins with a cutlass. One of them had received, in my judgment, ‘ forty shots in his body before he died : And the last of the three, ‘ that was killed, had swum a good *English* mile first, not only with ‘ his hands tied behind him, but also with his arms pinioned †.’
—And so much for the Body of Man in the natural state.

I will now inquire concerning his Mind, which, it is evident, according to my philosophy, can be nothing else but the mere animal Mind, without Intellect, which he has not yet acquired, nor can acquire in this state of his existence, otherwise than by the intercourse of social life, the invention and the practice of arts. But, in place of intellect, he has, as well as other animals, instinct, by which he is directed unerringly to every thing that is proper for the preservation of the individual and the continuation of the kind.

The

* Page 39.

† Callender's Collection of Voyages, Vol. ii. p. 542.

The Animal Mind, as I have observed in the First Volume of this work *, has two kinds of powers, very distinct from one another—the *gnostic*, and the *orectic*. By the former of these the animal *perceives* and *knows*, and by the latter he *desires* and *inclines*: Under which I also include *aversion*; for *aversion* is the desire of the absence of any thing. Of these powers it is evident that the gnostic is first in order; for, unless we *perceive* or *know* a thing, it is impossible we can *desire* it.

The Animal has but two gnostic powers, the Sense and the Phantasia; which last may be called a kind of secondary sensation, as by it the animal perceives again what he has before perceived by the Senses: And, as in the Phantasia, the images of external things are preserved, to be presented to the Mind as often as is necessary for the purposes of the Animal Life, it serves the purpose of Memory in Man, which, as I have said elsewhere †, preserves our ideas in the same manner as the Phantasia does our Sensations.

As to the Orectic powers of the Animal Mind, they are fitly divided by the antient philosophy into two, *ἐπιθυμία* or *appetite*, and *θυμός* or *anger*. By appetite, Nature or Instinct directs us to pursue what is proper for us, and to shun what is hurtful. But this would not be sufficient for the purpose of Nature, if the Animal had not likewise a strength of Mind, by which he perseveres in pursuits, and overcomes difficulties that may lie in his way: Nor would even this be sufficient for the preservation of the Animal and of his race, if he had not likewise a certain degree of fortitude and courage, by which he is prompted to resist attacks, and to encounter dangers in defence of himself and his offspring. These dispositions of the Animal Mind are denoted by the word *θυμός* or *anger*.

Further,

* Vol. i. Page 110. et sequen.

† Ibid. p. 96.

Further, Nature has not only given the animal certain appetites and desires, but has also suggested to him the proper means of gratifying those desires : And it is in this chiefly that we admire the instinct of animals, which prompts them to do things that no human intelligence could devise, and in a better manner than they could be performed by the most skilful human artist.

The animal Man must therefore have all those qualities of Mind belonging to other Animals. But, as I imagine, he is superior to them, not only by his Intellect, but in his animal part, I believe he has all those qualities in a higher degree. His natural appetites, for example, I hold to be stronger ; his anger also, and his courage and resolution to overcome difficulties and encounter dangers, to be greater than those of other animals ; and that Instinct, or natural sagacity, as it may be called, by which he contrives means to gratify his desires, I believe, is greater than even that of the Beaver, and such, as we are told, that of the Oran Outan is.

Such is the Mind of Man in the natural state ; and in that state it is, I think, evident that he must be as happy at least, or, perhaps, happier than other animals, as his animal parts are superior to theirs. The happiness of the animal is as great as the pleasures of the body can make it ; and he feels no bodily pain, except what may arise from external accident, to which animals in the natural state are not near so liable as those that are tamed and civilized. He is subject to no diseases ; and, when he dies, it is rather sleep than death. He has pleasures of the Mind, as I have elsewhere observed *, as well as of the Body ; nor is he afflicted with any pain of Mind worth mentioning. He, therefore, enjoys a tranquility and composure of Mind, which is very rarely to be found in the civilized Man, whose Mind is disordered by various passions unknown to the mere animal, and who is often at variance with himself, being

* Vol. II. Metaphysics, p. 103.

distracted and torn to pieces by different passions, each contending for mastery, which never happens to the animal in the natural state, who is perfectly one animal, without discord or division. It is not, therefore, without reason, that Homer has pronounced the civilized Man the most miserable of all animals upon the face of the earth *.

There are no men living together in numbers or in any kind of society, that are in the perfect natural state, so far as we know, (for single Savages have been found in that state, in different parts of Europe *), though they may be, and, in some parts of the earth not yet discovered. Even the Oran Outan is not in a state perfectly natural; for, though he has not a language of articulation, he uses a weapon, builds some kind of huts; and, what is more extraordinary still, and is never done by any mere animal, he carries off Negro girls and boys, in order to use them for servants; a fact as well attested as any concerning him. We cannot, therefore, form any perfect judgment of the happiness of Man in the natural state, except by what we know of him in the first ages of civility. Of these there have been traditions preserved (for records there could be none,) in some countries, and particularly in Greece, which have been handed down to us by their poets, the only historians of those early times. Of these traditions we have a full account in the beginning of Ovid's *Metamorphoses*, where he has described at great length this golden age,

* Οὐ μὲν γὰρ τί πον εἶναι, οἰζυρότατον ἀνδρὸς
Πρωτῶν, ὅσση τε γαῖαν πίπτεται τε καὶ ἔρπη.

Illad. xvii. Vers. 446.

He makes Jupiter say this, when he laments the condition of the two immortal horses of Achilles, who, by destiny, were condemned to live for ever among such miserable mortals. If it was a misfortune to live for ever, even among such men as those antient heroes, how would he have lamented the fate of a Strulbrug man or horse, condemned to an eternity of life, among such men as the present, and in such times?

* Page 74.

age, as it was called, in which men are said to have lived the most happy life possible. Of the same kind was the age of Saturn in Italy, who first introduced government and the arts of civil life into that part of Italy, called *Latium*, from being his *hiding place*; whither he came,

*Arma Jovis fugiens, et regnis exul ademptis.
Is genus indocile ac dispersum montibus altis
Composuit, legesque dedit; Latiumque vocari
Maluit, his quoniam latuisset tutus in oris.
Aurea, quae perhibent, illo sub rege fuerunt
Saecula; sic placida populos in pace regebat:
Deterior donec paulatim ac decolor aetas
Et belli rabies, et amor successit habendi*.*

In which lines, I am persuaded, Virgil has recorded, as a faithful historian, the traditions of his country; of the truth of which, I think, there is very little reason to doubt.

Of what kind the life of our first parents was before the fall, and whether that may not be called the golden age in the land of Chaldaea, I will not presume to inquire. But one thing seems pretty evident, that those progenitors of ours, before they ate of the tree of knowledge of good and evil, had not those opinions concerning good and evil which have made the misery of their descendants ever since. But, whether they were superior beings, who had not opinions concerning good or ill, which may be either true or false, and, when false, are the source of all vice and folly, but had certain knowledge of that distinction;—or whether they were animals

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of

* *Æneid. viii. V. 320.*

of the same species with us, but in the natural state, without any opinions at all of any kind, is a matter of profound inquiry, for which I am not qualified, as I am no divine, nor skilled in the original language of the Sacred Oracles.

Leaving, therefore, such speculations to others more learned, I shall only add upon this subject, that the happiness of the natural state, or of the first ages of society, appears to me to have been very much magnified by the poets; for, in such a state, there could be no more, or very little more, than the happiness of the mere animal, there being wanting the chief happiness of Man, which consists in the perfection of his intellectual nature. If, says Plato, the men of the golden age, who were supplied with every thing they wanted without toil or labour, and lived in a most perfect natural way, not being clothed or housed, had employed their leisure in philosophy, they would no doubt have been infinitely happier than the men of this age; but, if they did nothing but eat and drink, and enjoy other bodily pleasures, it is evident that their happiness must have been of a very low kind *.

The only men we read of in history, who enjoyed the happiness described by Plato, were the Gymnosophists of India. These alone, of all the men we ever heard of, joined the philosophical with the savage life; for they lived naked in the woods, upon the natural fruits of the earth, and there philosophised †.

* *Platonis Politicus*, p. 537. 538. edit. Ficini.

† *Arrian Indica*, cap. xi. This author, whom I quoted before, upon the subject of the Gestation of Elephants, p. 169. appears to me to have been better informed concerning India and its inhabitants than any other antient author; for he had his information from Megasthenes, who travelled through India, and from Nearchus, who was with Alexander in India, and was the admiral of his fleet, which he conducted from the mouth of Indus to Babilonia.

C H A P. VIII.

What the Mind of Man is in the Natural State, or in the First Ages of Civility, best known by being compared with the Minds of Men more advanced in Social Life.—The Understanding of Men depends upon the Progress they have made in the Arts.—This the Reason why those Nations who have made little Progress in Arts appear quite stupid and brutish.—The Progress in Arts depends upon the Country and Climate in which the People Live.—Great Difference, in this respect, betwixt South America or the West India Islands, and North America.—The Indians of North America the best living Example of what Men are in the First Ages of Society.—A particular Account of them.—Of the Morlacchi, a People of Dalmatia.

WE cannot, I think, form a true judgment of the Mind of Man in the natural state, or in the first ages of civility, except by comparing it with the Minds of Men in the more advanced stages of society. In the first ages of civil life, a Man cannot be far removed from a Brute ; for he must be ignorant of all those arts and sciences which improve our understanding so much, and may indeed be said to create it, or, at least, to bring it into exertion, and call it forth from the latent state in which it was before. It is evident, therefore, that the intelligence of men in civil life must depend upon the progress they have made in arts ; so that, if they have made little or no progress, they must appear to be very stupid and brutish. And this will account for the descriptions given us, both by antient authors and modern travellers, of nations who had the use of very few arts.

arts. Of this kind were the *Fish-eaters* and the *Insensibles*, of whom Diodorus speaks*.

Another thing to be observed is the country and climate in which those savages live ; for, if the climate be mild, and the country abounding in all the natural fruits of the earth, and not so overstocked with inhabitants, but that they may all live at their ease, the consequence will be, that the people of such a country will have little spirit or understanding, and will be a dull, sluggish, unwarlike people. This was the case of the inhabitants of the islands of the West Indies, where the Spaniards first landed when they discovered the new world. The Spaniards, therefore, treated them as beasts, and believed, or pretended to believe, that they were no better, till their humanity was established by a Bull of the Pope. The same was the case, in some degree, of the people of Mexico and Peru : But the inhabitants of Canada, and other parts of North America, were a people altogether different ; for, living in a country and climate where men could not subsist without the invention and practice of the arts of hunting and fishing, nor without much toil and labour and great indurance of the injuries of weather, and being also engaged in frequent wars with one another, a noble race of men was formed, such as would have done honour to any age or country in the world. Whoever, therefore, confounds these nations of North America with the Southern Americans and the inhabitants of the West India Islands, and speaks of them promiscuously, as a weak, effeminate, contemptible race of men, knows nothing of either the history or philosophy of human nature.

It is by the example of those nations of North America that I propose to show what men were in the first ages of society, and in countries where a life of toil and labour, and the practice of arts, was of absolute necessity. And I choose living examples of this kind,

* Page 51.

kind, rather than such as are taken from antient books, to which, I observe, that Men, who are not scholars, give very little credit. There are also many among us, who are not disposed to believe the most credible travellers, if they attest facts very different from what has fallen under their own observation, and contrary to the notions they have formed of human nature. Laying aside, therefore, both antient authors and modern travellers, I will appeal to nations whose customs and manners we are well acquainted with, having been long connected with them in war, in peace, and in commerce. Such are the Savages; as we call them, of North America, concerning whom I have been at a great deal of pains to inform myself: For, not being so happy as to be perfectly satisfied with men such as I see them in Britain and in other parts of Europe, I have been naturally led to inquire whether men have been in all ages and nations of the world such as we see them now, and whether there are not yet to be found men very different from us, in Mind as well as in Body. Now, I think, those Savages of North America are very different from us, particularly in Mind, of which I am now speaking. And I will here give a character of them, which I have had from several persons who have been years among them, and particularly from Monsieur Roubaud, whom I have mentioned in the First Volume of the Origin and Progress of Language *, who was missionary among a tribe of them for seven years, and, besides, was acquainted with an old missionary, who had resided no less than forty-six years at a place where there is a general rendezvous once a year, on account of commerce. It was no wonder, therefore, that Monsieur Roubaud, being so well informed, and having lived so long among them himself, should know their customs and manners better than any man that ever I conversed with. But, further, he understood perfectly their language, which it was necessary he should do, in order to discharge

* Page 558. of the Second Edition, where I have given his remarks upon the language of the Albinaquois, a nation of North America, which show him to be a Man of science and accurate observation.

charge his office of missionary among them. Now, without the knowledge of the language of a people, it is not easy to know perfectly the manners and characters of any nation. I have set down, in many sheets of paper, what he told me concerning them, of which I will here give the reader the summary, with the addition of some facts, which I learned from others, who had resided in the country as well as Monsieur Roubaud, and had had a good deal of intercourse with the Indians ; not so much, indeed, as Monsieur Roubaud, but enough to make them sure of the facts they related.

Describing their character, Monsieur Roubaud said, that they have a gravity and composure of Mind which nothing can disturb ; being neither elated by good, nor depressed by ill fortune. Those common human passions of joy and grief, they seem not liable to ; and they have a presence of Mind which is never disconcerted by any event, however surprising or unexpected. They are as cautious and deliberate in council, as ardent in fight—such lovers of liberty, that it never yet has been possible to make a slave of any of them—as faithful in the observation of treaties, as wise and prudent in making them ; and abhorring our perfidy so much, as to make it a common proverb, “ As false and treacherous as a white man.”—They show such a magnanimity and contempt of death, in the midst of the most exquisite torments, as altogether exceeds the belief of those who have not seen it. At the same time that they have this strength and firmness of Mind, they have a great deal of tenderness in their nature ; and, particularly, in natural affection to their children, and even their adopted children, there are no people who exceed them.—A gentleman of the army told me that he saw a parting betwixt an Indian father and a British officer, whom he had taken prisoner and adopted as his son, and who was one of the very few instances of a man who had been any time among them, that could be persuaded to leave them ; and he told me he never saw a more tender scene.

Their

Their public spirit, and their attachment to their nation, is, I am afraid, greater than the attachment of the most of us to our families. And, indeed, they consider their nation as their family ; so that whatever injury is done to their nation, they consider as done to themselves : And they make no distinction betwixt the individuals of any nation and the nation ; for, if they are wronged by an individual of another nation, they are satisfied with revenging it upon any other individual of the same nation.

As to private friendship, such heroic friendships as those of Hercules and Theseus, Pylades and Orestes, so much celebrated in antient story, are common among them ; and there are very few of them who do not live and die with their friend. There was one of them, known by the nickname of Silverfoot, who was a sworn friend of a Scotch officer of the name of Kennedy. This officer was obliged, in the way of his duty, to go to the siege of the Havannah, in the last war. He told his Indian friend that he had nothing to do there ; and therefore desired that he would not follow him to a place where there was more danger from the climate than from the enemy. But his friend could not be persuaded to leave him. Kennedy died there, and his friend very soon after him ; not of disease, as I was informed, but of grief.

Nor are their friendships with one another greater than their hospitality to strangers. If you come under an Indian's roof, he will protect you at the hazard of his life, and treat you with the very best things he has to give you, even if he should want himself ; and Monsieur Roubaud told me that he has known them fast three days, to save provisions for him. If a stranger stays any time with them, they tell him " that the sun shone brighter since he " came to their house." This is truly a classical compliment, and

was the finest thing that Horace could devise to say to Augustus, when he was describing the pleasure the people of Rome had in seeing him, after a long absence ;

—*Gratior it dies,
Et soles melius nitent* *.

They use a like figure to express grief. I know an officer in his Majesty's army, to whom an old Indian said, who had lost his son in battle twenty years before, ' That, during all that time, the sun ' had never shone bright.'

Monsieur Roubaud concluded their character, by saying, ' That ' they had every virtue belonging to human nature, and no vice, ' except what they had learned from us Europeans.'—The chief of these vices is drunkenness ; for, though they are superior to all toil and pain and even to death itself, they cannot resist the temptation of spiritous liquors ; so true is the antient observation, that the allurements of pleasure are more dangerous to virtue, than the terror of pain. Whatever murders and other crimes they commit, are all owing to the violent intoxication of these liquors, much more violent, especially when operating upon such strong bodies as theirs, than any intoxication with wine or beer : And they say, I think, not improperly, that it is the rum which commits those crimes, not they.

As to their cruelty to their prisoners : In the first place, as they do not make slaves of them, according to the custom of the antients, not having such plenty of provisions as to maintain both them and themselves, it is necessary they should kill them if they do not adopt them, as they frequently do, to supply the number of their own people,

* Lib. iv. Ode v.

people, which they are very anxious to preserve, more anxious than to destroy their enemies. And, as to the torments by which they put them to death, Monsieur Roubaud told me, that we are in a mistake if we ascribe this to impotence of passion, cruelty, and revenge; for it is among them the effect of policy; and they reason in this manner: War, say they, is the greatest evil that can befall men, and should be prevented by all means possible; therefore, in order to deter our neighbours from attacking us unjustly, we make them suffer the greatest torments when they become our prisoners in war. And I cannot help saying, I so far approve of this reasoning, that, I think, what we call the *humanity* of modern war in Europe, has made war very much more frequent than in antient times; and we are much readier to *take up the hatchet*, (to use the Indian phrase), and do it with much less deliberation, than the Indians do; neither do we let it lie so long *buried* as they do.

As to the gluttony with which they are charged, it does not proceed from what we call sensuality or intemperance, but from constraint of appetite, and the real necessity they are under, of filling their bellies when they have an opportunity, in order to be able to support the long fasts which their manner of living exposes them to; and we might as well accuse of intemperance an eagle or a fox, or any other bird or beast of prey, when he makes a voracious meal of any game which he happens to catch. The intemperate man is he who makes his pleasure consist in eating, and, for that purpose, is at pains to provoke appetite, and to procure the most delicate things to satisfy it; but he is neither a glutton nor an epicure, who eats only to satisfy present appetite and to provide for future want.

Their understanding is excellent ; and I have been assured, not only by Monsieur Roubaud, but by every man with whom I have conversed that had been much among them, that, in natural parts, and in skill in those arts which they practice, such as hunting and war by stratagem and surprise, they very much exceed any of the European nations. Monsieur Roubaud related to me many things they said, both to him, and to Monsieur Montcalme the French governor, who delighted much in conversing with them, which showed not only great acuteness, but great wisdom and depth of thought. These I will not here insert, nor many other particulars which he told me, as it would lengthen too much this account of those people, which is only intended to show, that men nearer to the natural state are better in mind, as well as in body, than nations grown old in civility and arts *.

But there is one story of them, lately come to my knowledge, which shows their manners and sentiments, as much as any thing I have said of them, and with which, therefore, I will entertain the reader. It happened in the war before the last, and comes to me from a Lady, who told me it was translated from the French by the late Dr Hawkesworth, and sent by him to the friend from whom she had it. I will give it in the words of the Doctor, who appears to me, in his translation, to have done justice to the original, and to have told a very fine story, of the authenticity of which I have no doubt, having heard, from eye-witnesses, some stories of the same kind,

* There is, however, one story he told me, which I cannot help relating, as it shows, as much as any thing I have heard, the magnanimity, or, as we would call it, the pride of an Indian warrior. There were some Indians present at a review of the French troops by M. Montcalme, the French general, in which he thought the men performed their exercises very well. Turning about to an Indian chief, who was near him, he said, (I will give the story in the words of M. Roubaud), ‘ N’admirés tu pas cela ? ’ To which the Indian answered, ‘ Monsieur le Marquis de Montcalme, Il n’y a que les fots qui admirent ! ’ One should have thought that he had read Horace’s epistle, ‘ Nil admirari,’ &c.

kind, one of which I mentioned above *, but none with so many affecting circumstances.

‘ During the last war in America, a company of the Delaware
‘ Indians attacked a small detachment of British troops, and defeated
‘ them. As the Indians had greatly the advantage of swiftness of
‘ foot, and were eager in the pursuit, very few of the fugitives
‘ escaped, and those, who fell into the enemy’s hands, were treated
‘ with a cruelty, of which there are not many examples even in that
‘ country. Two of the Indians came up with a young officer, and
‘ attacked him with great fury. As they were armed with a kind of
‘ battle-ax, which they call a tomahawk, he had no hope of escape,
‘ and thought only of selling his life as dearly as he could ; but, just
‘ at this crisis, another Indian came up, who seemed to be advanced
‘ in years, and was armed with a bow and arrows. The old man
‘ instantly drew his bow ; but, after having taken aim at the officer,
‘ he suddenly dropped the point of his arrow, and interposed be-
‘ tween him and his pursuers, who were about to cut him in pieces.
‘ They retired with respect. The old man then took the officer by
‘ the hand, soothed him into confidence by caresses ; and having
‘ conducted him to his hut, treated him with a kindness which did
‘ honour to his professions. He made him less a slave than a compa-
‘ nion, taught him the language of the country, and instructed him
‘ in the rude arts that are practiced by the inhabitants. They lived
‘ together in the most cordial amity ; and the young officer found
‘ nothing to regret, but that sometimes the old man fixed his eyes
‘ upon him, and having regarded him for some minutes with a steady
‘ and silent attention, burst into tears. In the mean time, the spring
‘ returned, and the Indians, having recourse to their arms, again took
‘ the

* Page 208.

‘ the field. The old man, who was still vigorous and well able to
‘ bear the fatigues of war, set out with them, and was accompanied
‘ by his prisoner. They marched above 200 leagues across the fo-
‘ rest, and came at length to a plain, where the British forces were
‘ encamped. The old man showed his prisoner the tents at a di-
‘ stance ; at the same time remarked his countenance with the most
‘ diligent attention : ‘ There,’ said he, ‘ are your countrymen ;
“ there is the enemy who wait to give us battle. Remember that I
“ have saved thy life, that I have taught thee to construct a canoe,
“ and to arm thyself with a bow and arrows ; to surprise the beaver
“ in the forest, to wield the tomahawk, and to scalp the enemy.
“ What wast thou when I first took thee to my hut ? Thy hands
“ were those of an infant ; they were fit neither to procure thee su-
“ stenance nor safety. Thy soul was in utter darkness ; thou wast
“ ignorant of every thing ; and thou owest all things to me. Wilt
“ thou then go over to thy nation, and take up the hatchet against
“ us ?’ The officer replied, ‘ That he would rather lose his own
“ life than take away that of his deliverer.’ The Indian then bending
‘ down his head, and covering his face with both his hands, stood
‘ some time silent ; then looking earnestly at his prisoner, he said, in
‘ a voice that was at once softened by tenderness and grief, ‘ Hast
“ thou a father ?’ ‘ My father,’ said the young man, ‘ was alive
‘ when I left my country.’ ‘ Alas,’ said the Indian, ‘ how wretched
“ must he be !’ He paused a moment, and then added, ‘ Dost thou
“ know that I have been a father ?—I am a father no more—I saw
“ my son fall in battle—he fought at my side—I saw him expire ;
“ but he died like a man—He was covered with wounds when he
“ fell dead at my feet—But I have revenged him.’ He pronounced
‘ these words with the utmost vehemence ; his body shook with an
‘ universal tremor ; and he was almost stifled with sighs that he
‘ would not suffer to escape him. There was a keen restlessness in
‘ his

‘ his eye ; but no tear would flow to his relief. At length, he became calm by degrees, and turning towards the east, where the sun was then rising, ‘ Dost thou see,’ said he to the young officer, ‘ the beauty of that sky, which sparkles with prevailing day ? and hast thou pleasure in the sight ?’ ‘ Yes,’ replied the officer, ‘ I have pleasure in the beauty of so fine a sky.’ ‘ I have none,’ said the ‘ Indian ;’ and his tears then found their way. A few minutes afterwards he showed the young man a magnolio in full bloom. ‘ Dost thou see that beautiful tree ?’ says he ; ‘ and dost thou look upon it with pleasure ?’ ‘ Yes,’ replied the officer, ‘ I do look with pleasure upon that beautiful tree.’—‘ I have pleasure in looking upon it no more,’ said the Indian hastily, and immediately added, ‘ Go, return back, that thy father may still have pleasure when he sees the sun rise in the morning, and the trees blossom in the spring.’”

If the reader is not convinced by what he hears of a people, so far off as the other side of the Atlantic, I will mention to him a people, even in Europe, to whom he may himself go, and be satisfied of the truth of what I am to say of them. I was, indeed, much surprised myself when I first heard of such a people in Europe, such as I thought, were only to be found in the wilds of America, or in some of the islands of the South Sea : But they are in a very remote part of Europe, at a very great distance from modern civility and refinement. They are called *Morlacchi*, inhabiting the mountainous part of Dalmatia, altogether out of the route of our fashionable travellers : Nor do I know that they ever were visited by any man of letters or observation, except an Italian Abbè, one Fontè, from whom we have the following account of them, published in the Annual Register for the year 1778. According to his account, they have not only that public spirit and attachment to their nation, and that
hospitality

hospitality and kindness to strangers, which are common to all the barbarous nations, but, in private friendship, they exceed, if possible, even the Indians of North America ; for people there are joined in the bands of friendship, as we are here in the bands of matrimony ; And not only men with men, but women with women. And this is done in the most solemn manner before the parson, (for they are Christians), with a certain ritual, or form of words. And our author adds, that there has hardly been known, except in some instances of late years, any violation of those marriages of friendship.

To make a contrast of the manners of those nations with the present fashionable manners in Europe, would be an invidious, as well as an unnecessary task, as it must be obvious to every reader ; and, besides, it does not belong to this part of my work, but to that in which I am to treat of men in a degenerate state of society.

C H A P.

C H A P. IX.

Of the Difference betwixt the Strength of Mind of a Savage and the Knowledge of a Civilized Man in Arts and Sciences.—Difference betwixt the Natural Sagacity of a Savage, and of a Civilized Man.—Of the Faculty of Imitation belonging to Man:—All his Arts learned in that Way.—A wonderful Example of it in Children learning to speak.—The Idea of the Fair and Handsome not to be found at all in the mere Natural Man.—It appears in the First Ages of Civility.—Examples of it.—Men in the Natural State cannot multiply much.—Reasons for this:—First, Want of Provisions:—Secondly, The Animal does not breed so fast in that State.—This proved by the Analogy of other Animals, such as Cattle, Dogs, and Swine.—Reason for this, the unnatural Warmth of the Housed Life.—But the Breed not so good.—Nature has provided against the Country being overstocked with any Species of Animals in three several Ways:—First, The Females not producing often:—Secondly, Not many at a Birth:—Thirdly, More Males than Females;—this last most observable in the Locusts in Spain and Africa.—The larger Animals do not multiply so much as the lesser.—Man, among the larger Animals.—Means used by Nature to prevent his too great Multiplication:—More Males in our Species produced in the Natural State than Females.—Custom in the Country of Thibet, accounted for.—The Oran Outans, Patagonians, and New Hollanders, do not increase much.—A Country inhabited by Men in the Natural State is not understocked any

more than overstocked.—In civilized Countries the Inhabitants multiply very much faster in the First Ages of Civility.

FROM what has been said in the preceding Chapter concerning the natural state of Man and the first ages of society, the reader will be able readily to distinguish betwixt the knowledge of arts and sciences, and that strength of Mind by which we are enabled *to act and to suffer*. This is a distinction which is obvious to common observation ; for we every day see men, who excel in arts or sciences, but are very weak in Mind as well as in Body. Savages, therefore, though without those acquired endowments, are very much superior to us in natural strength and firmness of Mind.

They are also superior to us in natural sagacity, which we must likewise distinguish from the knowledge of particular arts and sciences. And, if they were not by Nature superior to us, their education and manner of life would make them so ; for, among them, every man has every thing to provide for himself that he needs, not being supplied by the skill or industry of another. He must, therefore, acquire a dexterity and readiness of wit and invention, which no man among us can have, who supplies himself only with one or two things, or, like the better sort among us, with nothing at all. It is no wonder, therefore, that the Savages of North America, having so much better natural parts than we, and being so much more skilled in those arts, which with them are the necessary arts of life, I mean hunting, fishing, and making war according to their manner, hold us in great contempt, as animals absolutely useless ; and, when they speak of us, commonly give us the name of the *white nothing*, unless when they are angry with us, which they have often great reason to be, and then they call us *the people accursed of God* *.

There

* Adair's History of the North American Indians, printed in London, 1775. I have heard a story of a British officer who was sailing down the river St Laurence,
in

There is one thing belonging to Man in his natural state, which deserves our particular attention, and that is, his faculty of imitation, which is greater in him than in any other animal : For other animals, we see, imitate, some by gesture only, others by voice only ; but Man imitates both ways *, and not only the actions and qualities of Body, but the sentiments and passions of Mind ; for he can assume a character, and become another man. It is, therefore, undoubtedly true, what Aristotle says, ‘ That Man is the most imitative of all animals ;’ and likewise what he adds, ‘ That it is by imitation that he first learns †.’ And, indeed, I hold that his imitative faculty has been the origin of all the arts of life : It is by it that he has learned to build, to weave, to sing, and even to speak, as I

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think

in a canoe with two Savages. In this river, there are several falls, or *rapides*, as the French call them. Before they came to one of these, which was so great that the canoe was in hazard of being overfet, he heard the Indians speak to one another in their own language. After the danger was over, he asked them what they were saying : They told him, that they were concerting what part each of them should act in the event of the canoe being overfet ; and that it was agreed betwixt them, that one should take care of the canoe, and the other of *the white nothing*, a term in that case, I believe, properly enough applied to the officer, who, it is likely, was not capable of saving either himself or the canoe.

* It is surprising how the barbarous nations are able to imitate the cries of so many animals so well, that it is impossible to distinguish the imitation from the original. Mr Adair, in his history above quoted, relates, that the Indians of North America, when in any of their expeditions they divide themselves for better concealment, which they frequently do, the signals they agree upon are the cries of certain quadrupeds, or fowls, that frequent the place they are in ; and he says that there is not a quadruped or fowl in the American woods of which they cannot exactly imitate the voice, p. 385. And the same is told us of the Kamtschatkins. See a French Account of that country lately published, and added to the Abbé Chappé’s travels in Siberia.

† Aristot. *περί ποιητικής*, Cap. iv.

think I have clearly proved in the First Volume of the Origin and Progress of Language *.

The faculty of imitation in the matter of Language, as it appears in our children, is not unworthy of the attention of the philosopher. I have already shown how difficult an art simple articulation is †. But there is a great deal more in language besides the mechanism of articulation; for there is the proper use of the words, the changes of these words made by the various cases of nouns and tenses of verbs, and lastly, there is the composition of the words in syntax. All this is not easy to be learned in English, more difficult still in French, and most difficult of all in the Greek and Latin, and particularly in the Greek, where, besides the cases of nouns, so various in their terminations, there are so many changes of verbs and participles in their several voices, moods, tenses, persons and numbers, that I have heard it computed they amount to above 2000 in a single verb. And I am persuaded it is true with respect to some of the Homeric verbs, which are used both circumflected and barytoned and also as verbs in —μι, and with all that variety of flexion and termination, which makes his language much more various, and rich in analogy, than any other language, even in Greek. To a philosopher it must appear wonderful that *our* children, at the age of nine or ten, if they have been brought up among people that speak well, should have learned to speak accurately and correctly by imitation merely, without the knowledge of the art of language, or the capacity of acquiring any art or science whatever. But how much more wonderful must have been the case of a boy at Athens, who, at so early an age, could have learned to speak a language the most difficult, as well as the finest, that I believe ever was invented, with a variety, not only of articulation, but of rhythms and tones, so great,

* Second Edition, Book iii. Cap. vi.

† See Page 42.

great, that a man must be a scholar, and something more than an ordinary scholar, to have even an idea of the difficulty of the pronunciation of it ; (for, as to the practice, there is no man living has it); and all this, over and above the difficulty of the grammar of it, much more complex and various than that of any language now spoken.

There is another thing to be observed of men in the natural state, that they have no idea of the fair and the handsome, nor any sense of the *pulchrum* and *honestum* in sentiments or actions ; which is particularly observed by Diodorus Siculus and Agatharchides, in the account they give us of the Fish-Eaters upon the Red Sea *. And the reason is plain, namely, that they are mere animals, and have not yet acquired intellect, without which it is impossible they can have that, or, indeed, any other idea properly so called. But, as soon as intellect is formed, this idea grows up ; for, as I have shown elsewhere, it is the governing principle of the intellectual nature, so essential to it, that who is entirely void of it does not deserve the appellation of a Man. It is the source of our noblest and our worst passions, and is the motive of by far the greater part of those actions, which may be called the actions of the Man, and not of the mere Animal. It therefore appears, in the very first ages of society, under the various names of the virtues,—friendship, generosity, heroic valour, patriotism, and the like, or of the vices—pride, vanity, envy, anger, and revenge †. We have seen how proud and stately an Indian warrior is ‡ ; but, among men much less advanced in the arts of civil life, that quality is predominant. The inhabitants of the Ladrone Islands, though without the use of fire or clothes when they were first discovered by the Spaniards, and with hardly any art of life except the use of speech,

* See Page 49.

† Metaphys. Vol. ii. Book ii. Cap. 7.

‡ Page 212.

speech, were nevertheless very proud, imagining themselves the first and the best of Men *. The Troglodyte, or *Homo Nocturnus* of Linnæus, a little animal, not above half our height, who sees hardly at all in the day-time, and chiefly in the night, is so vain and conceited, that he believes the earth was made upon his account, and that, some time or other, he is to govern it †.

It is a common observation, that custom is a second nature ; and it is true of civilized men, so true, that, among us, it often happens that the second nature is more powerful than the first. But it is not so among wild men ; for Nature is so strong in them, that it is not to be overcome by any custom or education, at least not in the first generation : And, accordingly Kolben the Dutchman, in the account he has given us of the Hottentots, relates that many of the children of the Hottentots have been taken very young by the Dutch, and bred up among them, and even taught arts and professions, but who, nevertheless, whenever they found a proper opportunity, stripped themselves, and ran away to their countrymen in the woods ; of which he gives a remarkable instance, and which I see is related by M. Rousseau, in his treatise upon the inequality of Men. — This evidently shows that inclinations, dispositions, and other qualities of the Mind, go to the race, as well as the qualities of the Body ; which I would have the reader give particular attention to, as a fact of great importance in the history of Man, and whereof I shall make much use in the sequel of this work.

There is another quality of the Mind, in the natural state, to be carefully observed, as it essentially distinguishes a Man in the perfect natural state from a civilized man : And it is this, That the man of nature

* Dictionnaire Geographique de Martinier, p. 125.

† Origin and Progress of Language, Vol. i. p. 304. Second Edition.

nature has no opinions of any kind, and particularly no opinions concerning *good* or *ill*, but is governed entirely, as the brutes are, by instinct, that is, by Nature directing him to do the things necessary for the preservation of the individual, or the continuation of the kind; whereas, all the actions of the civilized man, which can be called human, his bad as well as his good, proceed from an opinion of *good* or *ill* in such actions. It is for this reason that I do not believe, as I said before *, that the Oran Outan is in the perfect natural state, because he does things that must proceed, as I think, from some opinion formed of what is *good* or *ill*, such as walking upright, using a stick for a weapon, building huts, carrying off Negroe boys and girls to use them as servants; and, above all, he shows a sense of honour, which distinguishes as much, or more than any thing else, the civilized man from the mere animal. And the reader may here observe a difference likewise among men in the civilized state: For such of them as have not perfected their intellectual faculties so much as to be philosophers, have only *opinions* concerning *good* or *ill* in human life, which, as I observed before, may be either right or wrong †, and, if wrong, are the source of all vice and folly, and consequently of all the miseries of human life; whereas those of them who are philosophers, have *science*, or certain knowledge of what is *good* or *ill*.

I come now to what is to be the principal subject of this chapter, viz. To inquire whether mankind can be numerous in the natural state?

And I think they cannot: *First*, Because it is impossible that many men in a country can be supported upon the natural fruits of the earth merely: And, accordingly, we know of no country that is in
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* Page 202.

† See Page 203.

the least degree populous, without agriculture, pasturage, or fishing.

2do, I do not believe that men in the natural state breed so fast, or have so many children, as men in a state of civilization, at least in the first ages of that state : And I think so from the analogy that I conceive there is betwixt Man and other Animals. For, as I am considering Man at present only as an animal, I think I may fairly argue from that analogy ; and particularly from the analogy betwixt horses or cattle and men, they being, as I have observed *, all animals, who, by nature, live above ground day and night, and feed upon vegetables, and whose animal natures, therefore, must be supposed to have a great resemblance. With respect to horses, as we never let them run out always, we cannot so well compare their natural life with their housed : But, as to cattle, we know them in both states ; for the cattle in the West Highlands of Scotland are never housed, but run out, summer and winter ; whereas, in other parts of Scotland, and, I believe, all over England, they are housed, if not all the year, at least a great part of it. Now, the cows that run out always never take the bull till they are three years old, and very often not till they are four ; and they seldom have a calf two years running, but generally only one every other year : Whereas the housed heifers admit the bull when they are two years old, and sometimes when they are only one ; and they have regularly a calf every year.

There is another animal, whose natural and domesticated states we can compare together ; that is the dog. He does not resemble man near so much as the horse or ox does, being an animal of prey, and earthing, or going under ground ; but he will serve to show what difference, as to multiplication, housing makes. The wild bitch

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* Page 78.

or bitch-fox, has never but one litter in the year, and, in that litter, hardly ever more than *five*: Whereas the tame bitch has often three litters in the year. A gentleman told me he had a bitch who had four in fourteen months; and they have commonly eight or nine at a litter.

Another example of the same kind the species of hogs furnishes. The wild sow never has but one litter in the year, and I doubt whether she has even that every year, and never above four or five at a litter: Whereas the tame sow has commonly two litters in the year; and I have known one of them have seventeen at a litter, (Buffon says he knew one that had eighteen), and they begin to breed when they are no better than pigs.

And the reason for this difference, betwixt procreation in the natural and the housed state, is the unnatural heat of the house, and the indolence in which the animal lives, having all the necessaries of life furnished to him. This brings on an immature puberty, and provokes the female to desire the male much oftener than she would do otherwise; and when this unnatural life is carried so much farther, as it is among men, we see what the consequence of it is with respect to our females*.

As there is a great resemblance betwixt the vegetable and animal life, an unnatural heat has a similar effect upon the vegetable; for a

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plant

* See what Dean Swift has said upon this subject, in his *Voyage to the Houyhnhnms*, Chapter 7. where he has touched the subject very delicately. This author had not only more wit and humour than any man, I believe, that ever lived, but, I think, was the best philosopher of his age, though he has written nothing professedly upon philosophy; and there is more pleasantry, ridicule, satire, and, at the same time, sense and knowledge of men and manners, in his *Gulliver's Travels*, than is to be found altogether in any other work, antient or modern.

plant in a hot-house will produce leaves, blossoms, and fruit, much sooner, and in greater quantity, than in the open air.

But, though I believe all animals breed very much faster in the tame and housed life than in the wild, the breed is not near so good. For we know that many of the offspring of the animals I have mentioned, viz. cows, dogs, and swine, are weak and sickly, and very often die before they come to maturity; and it is well known what numbers of our species die under age: Whereas, in the natural state, the offspring of no animal dies when it is young, unless it be by some accident.

There is a *third* reason which makes me think that a country, inhabited by men living in that state, never can be overstocked; and it is this, That, as Nature has provided wonderfully for the preservation of the several specieses of animals, so she appears to me to have been equally careful to prevent the too great increase of any one, and to have acted the part of a kind mother to all, not of a stepmother to any; which would not have been the case if she had suffered any one species to overgrow much; for that necessarily must have been to the hurt, if not to the total extinction of some other.

Of the impartiality of this maternal care of Nature, the country of India is a strong proof. Before the entry of the Tartars and Mahomedans into that country, there was no animal killed by Man, not even tygers, except in self-defence; yet we do not hear of India having ever been over-run with animals of any kind, or infested by wild beasts, more than other countries. These have been exterminated by Men, in many countries, as wolves in Britain, and lions and wild boars in Greece and Asia Minor, where they certainly abounded very much in the days of Homer. But, even where they are not destroyed,

stroyed, they do not appear to multiply much, otherwise the race of the animals on which they prey might in time be annihilated. Against this over-increase Nature has provided in two ways; first, by the female not breeding often; and, secondly, by her not producing many at a time. We have an example of both in the fox, the only beast of prey now remaining in Britain: For, as we have already observed, the bitch-fox never breeds oftener than once a year; and there is reason to believe, from the example of the wild cows, not so often; and, secondly, she does not produce many at a litter, not near so many as the tame bitch.

But there is a third way by which Nature has guarded against the over-increase of these specieses; and that is by the females producing more males than females. This is observed in the fox among us: For the proportion of males to females, in that species, is observed to be at least as *three* to *two*; so that, when there are five of them in a litter, there are three of them males: And sometimes the males are as *two* to *one*. And there is good reason to believe that it is the same in other specieses of animals of prey.

There is an animal, which may be called an animal of prey, as it preys upon the fruits of the earth more than any other animal preys upon flesh. The animal I mean is the locust. These animals were one of the plagues of Egypt, and the severest, I think, of them all; and they are still a plague, in some years, both in Africa and Spain, where they would devour every green thing, and desolate the earth, if the males of the species were not very much supernumerary to the females. This is well known in Spain; for there, if they observe that the females are greater in number than usual, they foretel, with great certainty, that the destruction by the locusts will that year be very great*.

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From

* See a book of Travels in Spain, lately published, in the 1780, by John Talbot Dillon, Knight and Baron of the sacred Roman Empire. He has bestowed a whole chapter

From animals that devour other animals, or devour the fruits of the earth, as the locusts do, I think the argument will proceed, in some degree, to the larger animals, which require a great deal of food; and we may conclude that they do not multiply very much; whereas the insects, and the other small animals, multiply exceedingly, because they are easily maintained: But, if the larger animals
were

chapter upon locusts, p. 256. In which he says, that, if the number of females was to be equal to the number of males, only for ten years, they would destroy the whole vegetable kingdom. He says that, in the year 1754, 1755, 1756, and 1757, they ravaged the province of Estremadura; and he adds, that, when they left that province, and ravaged La Mancha, he is sure there were at least *twenty* males to *one* female. Another thing that prevents their desolating the countries where they are, is, that the male goes into the water, and dies, immediately after copulation, and the female after laying and depositing her eggs. But all this notwithstanding, they commit dreadful ravages, both in Africa and the Southern Provinces of Spain. Although they are at first only a creeping insect, they get wings at last, and fly in clouds hiding the sun, as Milton describes the locusts in Egypt with that true heroic *tone* and *spirit* which distinguishes him from all the other English poets.

———— ‘ As when the potent rod
‘ Of Amron’s son, in Egypt’s evil day,
‘ Waved round the coast, up called a pitchy cloud
‘ Of locusts, warping on the eastern wind,
‘ That o’er the impious realm of Pharaoh hung
‘ Like night, and darkened all the land of Nile.’

I cannot help observing here, though it be a digression from my subject, that it raises my indignation exceedingly to see an author, such as Milton, treated with so little regard by some who call themselves critics; an author who, I think, is not only the boast of England, but of modern times, and to whom, in an age, such as this, which can only glory in the memory of what we formerly were in genius and learning, arts and arms, we ought to erect statues. We may apply to him what Quintilian says of Homer, whom he has imitated better than any other author: *Magni est viri, Homeri virtutes intellectu complecti*. But, in this age, I am afraid, there are few that can comprehend the beauties of either.

were to multiply as much, the lesser animals must be starved ; and, I imagine, the general rule will be found to be, that the larger the animal the less the multiplication.

Among the large animals is Man, especially when he was of the size of Homer's heroes. The maintenance, therefore, of such men must cost Nature a great deal ; and, accordingly, we see, from the account that Homer gives of the eating of his heroes, it was impossible that many of them could be maintained in the natural state. It was therefore necessary that Nature should use, with regard to Man, the precautions that she has used with regard to other animals ; first, that the female should not breed too often ; and, secondly, that she should not produce too many at a time. In which last respect the resemblance is still carried on betwixt Man and the horse or ox kind ; for these have very seldom more than one at a birth, which is the case of our species. And I am persuaded that the third method of prevention is also used, I mean the production of more males than females.

That this is the case at present all over Europe is acknowledged ; And I think there is good reason to believe that it was formerly more so than at present, when men were in a more natural state. This I infer from the proportion entirely reversed in the East, where, as Mr Bruce informs us *, instead of more males being produced than females, there are *four* females to *one* male. Now, if the order of Nature in one country may be so totally deranged by a disorderly and unnatural way of living, it may be so, in a lesser degree, in other countries : And, as I have observed, I believe it is so among the men of rank in Britain †.

It

* See page 180.

† Ibid.

It is from this superabundance of males in our species that I account for a very extraordinary custom which obtains in the country of Thibet, where the women have more than one husband. If the women of that country were Amazons and governed the men, it might be accounted for in that way ; but, as that is not the case, it does not appear to me that we can give any other reason for it, except that the men being much supernumerary, more, I believe, than in Europe, at the same time it being fit that every man should have the gratification of that natural desire without encroaching upon the rights of others, it was thought proper that more than one man should have the use of the same woman.

In the territory of Callicut, in the East Indies, M. Buffon informs us, that, among the nobles, or military order there, called *Naires*, the women have the privilege of having several husbands, some of them to the number of ten ; but the lower rank of women are allowed only one husband ; and the men, even of noble race, but one wife *. This, perhaps, is for a reason different from that which I have assigned for the practice in Thibet ; for, as it is confined to one race of men, it would seem that they give this privilege to the women, of choosing husbands to themselves, and as many as they please, because they think that the excellency of the race depends more upon the females than upon the males ; and therefore they take care that the race shall be continued by them. Perhaps in this they are not mistaken ; and, accordingly, Buffon says, that the nobles of Callicut are men of very fine persons.—Further, I believe, though Buffon has not said it, that the noble race there is only continued by the females, which we know is the case with respect to the royal races and the succession of kingdoms in several barbarous nations ; and, no doubt, there is a greater certainty of the race in the female than in the male line.

In

* Buffon, Vol. iii. p. 413-

In Britain, it appears from what Julius Caesar says, that it must have happened sometimes; that, in their matrimonial communities, the men were supernumerary; for he says that ten or twelve of them had their wives in common; and chiefly brothers with brothers, and parents with children *.

For these reasons, it appears to me evident, that the increase of the species in the natural state must be very small. And this theory of mine is supported by the example of the Oran Outans, who certainly do not increase much, any more than the Patagonians or New Hollanders, who, according to the account of our late travellers into the South Sea, have not the appearance of being many in number.

But, if men in the natural state do not increase fast, the offspring is strong and healthy, so that all that are born live to the age of maturity: And, as the men are so long lived in the natural state, a country so inhabited is not likely to be understocked, any more than overstocked; so that Nature, in this, as in other respects, appears to have observed the just medium betwixt excess and defect.

In civilized countries, the number of inhabitants is certainly much greater than in countries where men live in the natural state, especially in the first ages of civility; as I shall have occasion afterwards to observe; for, in later periods, I can conceive that, by a great corruption

* ‘Uxores habent deni duodenique inter se communes, et maxime fratres cum fratribus, et parentes cum liberis.’ Lib. 5. *De Bello Gallico*, Cap. xiv.

ruption of manners, and the increafe of weakneffes and difeafes, the number of inhabitants in fuch a country may be even lefs than in a country of perfect favages.

And thus much for the number of men in the natural ftate.

C H A P.

C H A P. X.

In the Natural State a Difference of Individuals, as well as in the Civilized State.—All Men born with Geniuses for different Things.—The Wisdom of some antient Governments in classing Men according to these Differences.—Difference of Bodies in the Natural State.—The same Difference observed in other Animals in that State.—Difference of Minds also in the Natural State ;—but the Difference not so observable as in the Civilized.—This Theory supported by the Analogy of other Animals, particularly of Horses.—Of the Horses of noble Families in Arabia.—Whether the different Qualities of Body and Mind go to the Race.—With respect to the Body, the Qualities of it go to the Race, both among civilized Men and Savages.—Curious Fact related by Hippocrates.—A Difference of Mind also both in the Natural and Civilized State.—This an universal Law of Nature in all the Animal Race.

THE next thing, I propose to consider, concerning the natural or animal state of man, is, Whether there be not a difference betwixt the individuals of the same country and climate ; and Whether that difference do not go to the race ; or, in other words, Whether the distinction of birth and family, of which we hear so much, be not merely a political distinction, without any foundation in Nature ?

This question naturally divides itself into two. First, Whether, in this animal state of man, there be any difference at all among individuals ? And, secondly, Whether that difference goes to the race ?

That, in the state in which we live in Europe, there is a very great difference among individuals, from the moment of their birth, in their bodies at least, is a fact that cannot be disputed ; for some are born weakly and delicate, others strong and healthy ; some big and lusty, others small and puny : And this difference continues through life ; so that, in civilized nations, there is a very great difference in size and strength. The only question, therefore, that can be in this matter, with respect to the civilized state, is, Whether there be not likewise a difference in Mind ? Those, who maintain that Mind and Body are the same, and that we think and reason, have inclinations and dispositions, by a *vis insita* in our bodies, in the same manner as they say the planets are moved, will certainly admit that the bodies being so different, this *vis insita*, being an essential property of them, will be different also ; or, suppose they should admit that the Mind was a thing somewhat different from the Body, but entirely dependent for its operations upon the organization of the Body, they will surely not maintain, that, Bodies being so very different, the Minds also will not be different. The only question, therefore, in this matter, must be among those who maintain that the Mind is a substance perfectly distinct from the Body, and that the Body is not the efficient cause of any of the operations of the Mind, though it may be that without which the Mind, in this state of our existence, cannot operate. Now, I hold the natural difference of Minds, in the civilized state, to be a matter of fact, as clear and indisputable as the difference of Bodies. It is observable in children, in their earliest years, and when they are grown up, the difference of propensities and inclinations is so well marked,

marked, that I am persuaded there is no man that is not born with a genius more for one thing than another. *Poetae nascimur*,--is a common saying : But I say farther, that we are all born with a capacity of excelling, more or less, in one thing rather than in another ; and one of the greatest excellencies of any political constitution is to class men according to their several talents and dispositions, and to make them serve the public in that way. This was the wisdom of the most antient governments known in the world, those of Egypt and India, where the legislature, observing the different talents of different men, cast those of the same talents into the same class or *cast*, (as it is called in India), to which they were to be confined, practising that art, or business, for which they were by Nature intended, and no other ; and, as they understood that the qualities of the Mind went to the race, as well as those of the Body (of which more anon), they obliged every man to marry in his own class.

That, therefore, there is a natural difference, both in the Minds and bodies of Men, in the civilized state, independent of any education or culture, I hold not to be a matter of theory only, but of fact and observation. But the question at present is concerning Man in his natural state : And I think that, also, in that state, there is a great difference in the individuals, both in Body and in Mind.

With respect to the Body, the difference is certainly not so great as in the civilized life ; for there, by means of the various occupations of Men, their several vices and diseases of different kinds and different degrees, their bodies must needs be very different in health, strength, and size ; whereas, in the natural state, in which none of these causes affecting the Body are to be found, the difference of Bo-

dy cannot be so great. But still there must be a difference ; for those who have studied Nature know, that the variety of Nature is such, that there is not any one individual of any kind perfectly like another, not even two leaves of the same tree.

This reasoning is supported by what we see in the rest of the animal creation ; and, as I observed before, in the reasoning concerning Man as an animal merely, this argument from analogy appears to be perfectly conclusive. Now, we see a very great difference in the same kinds of animals even in the wild state, not only in different countries, but in the same country. There are lions and tygers, much superior, in size and strength and fierceness, to others : The Calydonian boar, who killed so many of the noble youth of Greece, one of whose teeth was still preserved in the time of Pausanias *, was certainly of much greater strength and size than any other boar in that part of the country : And every sportsman among us will tell you that there is a great difference in the size and strength of hares and foxes.

As to the Mind of Man in the natural state, though I maintain it to be a substance distinct from the body, I can see no reason why the variety of Nature should not take place in it, as well as in the other substance of which Man is composed ; and, therefore, why the Minds of men should not be as different as their Bodies, even in the natural state. In that state, indeed, the difference cannot appear so much

* Origin and Progress of Language, Vol. i. p. 264. Second Edit. More of these teeth were to be seen, as Procopius says, in a town of Italy, which he calls *Benevent*, being left there by Diomedes, to whose uncle Meleager they belonged. They were, says he, of the figure of a half moon, and not less than three *spithamæ* that is, twenty-seven inches, in circumference. Procopius de Bello Gothico, Lib. i. Cap. xv.

much by the exertions of the Mind, because its chief faculties are then dormant and only *in capacity* during their whole lives, as in us during our infancy. But still those faculties are there; and it is those faculties roused, and brought into action, that make the difference of the Minds of men in the civilized state. And, besides, I say that one Man, even while he continues in the natural state, will show more spirit, courage, and sagacity, than another, and therefore will be the leading animal in the herd.

Nor is this theory unsupported by the analogy of other animals. Nobody will deny, who knows any thing of horses, that the spirit of a horse of blood is very different from that of a common horse: And, besides his spirit, he has a gentleness of nature and a kindly disposition, which shows itself very evidently when he is tamed and broke to the saddle, and which distinguishes him from a vulgar horse as much as his superior spirit and mettle. An Arabian horse of one of their noble families, as they call them, some of whose genealogies they pretend to have kept for 2000 years *, will, when his rider is dismounted in battle, instead of running away, stand by him, and neigh for somebody to come to his assistance; and, when the horse himself has lost so much blood, that he is no longer able to continue in the battle, he will carry his rider out of it, and set him down in some safe place †.

And,

* I can believe this to be true; for the Arabians are a very antient nation, who have had for many ages the use of letters; and the genealogies of their horses are upon record, as our lands are in Scotland, and the succession of heirs in them. See M. D'Arvieux, *Memoires*, Vol. iii. p. 242. He was long in Arabia, and appears to have been particularly well acquainted with their horses, of whom he has related many curious particulars.

† Of this we are informed by Niebuhr, the Danish traveller in Arabia, Vol ii. p. 142.

And, even in this country, if you fall from a horse of blood in a chace, he will not run away from you, as a vulgar horse will do, but will stand by you till you mount again, though there be other horses running perhaps at full speed, both before and behind him *. In this country horses run with great spirit after hounds, and appear to be as keen in the sport as their riders ; but, in Arabia, those noble horses run against an enemy with as much spirit and impetuosity, as our horses run after a hare or fox.—In the dog kind, the difference among individuals is manifest, both in Mind and Body ; nor do I believe that there is so great a variety in any other animal, Man only excepted.

I have mentioned dogs and horses only, as the animals we are most familiar with. But I think it cannot be doubted that there is a very great difference of individuals in all specieses, and not only in the different races of the several specieses, but in the same race. Thus, for example, in a herd of oxen all of the same kind, it is observed, there is always one that commonly leads, and goes first into any field, or out of it : And I have been told it is a common thing, when a man buys a certain number of cattle, the best of a great herd, that he chooses them by the order in which they come into, or go out of the fold. It is the same with respect to sheep ; a thing that appears to have been observed as early as the days of Homer ; for he makes the Cyclops say to his ram, when he came last out of the cave, having the weight of Ulysses fastened under his belly, ‘ Why do you come last ? You ‘ are not accustomed to be left by the rest of the flock, but you are ‘ in use first to advance to the field with great strides, to crop the ‘ grafs ; and first you go to the water, and first you return to the ‘ fold

* This is a quality which they owe to their Arabian blood ; for M. D’Arvieux, whom I quoted in the preceding note, relates the same thing of the Arabian horses, Vol. iii. p. 244.

‘fold at night:’ Now you are laſt of all *.’ And thus I think it is proved, that there is a difference both in the Minds and Bodies of individual Men, in the natural, as well as in the civilized ſtate.

The next queſtion to be conſidered is, Whether the difference of individuals in our ſpecies goes to the race? And that it does ſo with reſpect to the Body, among civilized nations, is evident; for we ſee that weak, puny, or diſeaſed parents, have children of the like kind; and, on the contrary, ſtrong, robuſt, and healthy parents, have generally children of the ſame fort. As to the natural ſtate: There is no inheritance of weakneſſes and diſeaſes there; but there may be and I am perſuaded there is an inheritance of ſuperior ſize and ſtrength, or of any particular qualities of Body, ſuch as colour and ſhape.

Hippocrates the phyſician, in his treatiſe *De Aëre, Aquis, et Locis* †, relates a thing that appears very extraordinary upon this ſubject. He ſays, that, in a tribe of the Scythians, which he calls *μακροκεφαλοι*, who had been in uſe, for many generations, to make the heads of their children long, by ſqueezing them betwixt two boards, the children at laſt came to be born with ſuch heads; ſo that here we have an artificial bodily quality deſcending to the race: And he ſays, in the ſame place, that bald men produce bald men, and diſtorted diſtorted.

As

* Κριε πεπον, τι μοι ᾗδε δια σπείος ἔσσυο μῆλων
 ‘Υστάτος; οὐτι παρὸς γε λελειμμένος ἐρχεται οἶκον’
 Ἀλλὰ πολὺ πρῶτος νεμῆται τέρεν’ ἀνθεα ποίης,
 Μακρὰ βίβας· πρῶτος δὲ ροῆς ποταμῶν ἀφικανείς·
 Πρῶτος δὲ σλαθμονδὲ λιλαίειαι ἀπονεισθῆαι
 ‘Ἐσπεριος· νῦν αὖτε παννυχίος’——

Odyſſ. ix. Verſ. 447.

† Page 289.

As to the Mind, we know, by daily experience, that, in the civilized state, the qualities of it, as well as of the Body, descend to the race : And upon that supposition is founded the wisdom, as I have observed, of the legislators of Egypt and India, who threw together into the same class men of the same talents and mental endowments, and obliged them to marry with one another. And, if there be a difference of Minds among individuals in the natural state, as, I think, I have proved, there is no reason why it should not go to the race, as well as the same difference in the civilized state.

And here the analogical argument from other animals is most convincing ; for the difference of races and families among them is universal ; so that, if there were no difference among men in that respect, they would be an exception to a general law of Nature in the animal creation. And I would have those, who speak of this difference of races among Men as a mere chimera, consider how the difference among individuals, which they acknowledge, is to be accounted for. If Men living in the same climate and country, eating the same food, wearing the same clothes, educated in the same way, and often following the same vocation, are very different ;—and, if that is not to be accounted for from the race of which they are come, it must either happen by chance, or by the particular interposition of Providence. As to chance, there is no such thing in Nature, every thing being produced by fixed and determined causes, though these causes are to us often unknown *. And, as to a particular Providence, I think Horace's rule in poetry is good likewise in philosophy,

Nec Deus interfit, nisi dignus vindice nodus.

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* See what I have said upon this subject, Vol. i. p. 284.

It must therefore happen, not by miracle, but in the ordinary course of Nature. And, if so, it cannot be ascribed to any other cause, except to the race. But, it is to be observed, that it is not always the qualities of the father and mother that go to the child, but often those of the grandfather and grandmother, or even of a remoter predecessor.

And thus, I think, I have proved, that distinction of races and families, has a foundation in Nature. This is a point of great importance in the history and philosophy of Man, whereof I shall make much use in the sequel.

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C H A P.

C H A P. XI.

Of the Differences of Nations, Families, and Individuals.—This Difference owing to Mind, and not to be ascribed to Climate.—With respect to the Body, Men very different in the same Climates :—Also with respect to the Mind.—The Soil, the Water, or the Food, not the Cause of these Differences :—This proved by the Difference of Families where all those are the same.—The ultimate Cause of this Difference is the Will of God, for Reasons to be explained hereafter.

IN the preceding Chapter, I think, I have shown, that there is a difference, not only of Individuals, but of Races, in our species ; in this Chapter, I propose to inquire what may be the reason of particular men, families and nations, being thus distinguished from one another.

And here we may observe the wonderful variety of Nature. Every individual is different from another individual of the same family ; and each family of a nation is different from another ; and each nation has its characteristical difference, by which it is distinguished

guished from another : The consequence of which is, that, in each individual are united all the three differences ; for he is different from other individuals of the same nation and family, likewise from individuals of different nations, and also from individuals of different families of the same nation : At the same time, there is in him a likeness, not only to the individuals of the same nation and family, but to other individuals of different nations and families.—Thus, it appears that Nature is very properly said by Horace to be, *Rerum concordia discors*, being a wonderful composition of things like and unlike. It is this variety of Nature which is the foundation of the logical distinctions of Genus, Species, and Difference, which are included in every definition, and virtually in every idea of any thing. For it is only by these that we know any thing : And, however strange it may seem, it is no less true than strange, that we know nothing except in connection and relation with something else ; that is, in other words, our Intellect perceives every thing in System. This is an observation very remote from common apprehension, but which every man, who studies this universal philosophy, should always have in view *.

The cause of all these differences and singularities, is, according to my philosophy, Mind, which constitutes the essence of every thing, making it that which it is, and distinguishing it from every thing else. But there are many philosophers among us, who ascribe all these differences and singularities to material causes, deriving even the properties of Mind from Body : And, particularly, the characteristic marks of the distinction of nations, whether in Body or Mind, they say, are owing to climate.

This, with respect to the Body, is contradicted by fact and observation : For, in the same climate, we find men very different in

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colour,

* See what I have said upon this subject, Vol. ii. p. 109. 131.

colour, in figure, and in hair ; which last is a very distinguishing characteristical mark of our species. Thus, in Africa and some other parts of the world there are men with black skins, thick lips, flat noses and woolly black hair. In other countries of the same latitude, there are men of black skins indeed and of black hair, but of as fine regular features as any European, and their hair not woolly but straight : This is the case of the East Indians. And again, in the same latitudes, you have men whose skins are as fair as ours, though their hair be black but not woolly, and their features are as regular as ours : This is the case of the Chinese. In the same latitudes on the other side of the globe, the men are red, with straight black hair, and the features much such as ours, with a difference, which a curious eye will observe, even in the features of the different nations of Europe.

It will, I know, be said by the Materialists, that, besides the difference of climate, and of heat and cold, there is a difference of soil and of water, and a difference of food which that soil and that water produces.

To this I answer, that, if, in the same country, where the climate, the soil, the food, and the water, are the same, we find men altogether different in their bodies, and particularly in the colour, which is one of the most striking differences of men, that difference cannot be owing to any of the causes assigned by those philosophers. Now, this is the case in America ; for, among the red men there, we have a tribe of black men, who, like the East Indians, have straight black hair, and regular features : These are the Mosquito Indians.

As to Mind, if the differences of Body cannot be accounted for from bodily causes, much less can the difference of Minds, by those

those at least who hold the Mind and the Body to be distinct substances.

What puts an end, in my apprehension, to this question, and establishes, beyond all doubt, that it is Mind that makes the distinction of men, is the case of races and families, which, I think, I have proved to be distinguished from one another, both in Mind and Body. Now, if, not only in the same climate, but in the same nation or country, where the air, the water, the soil and the fruits of the earth are the same, the individuals be not only different, but the families and the races, it is impossible that this difference can be accounted for from climate, soil, water, or air.

And this theory of mine, that the difference of men and of families of men, is not owing to material causes, such as soil and climate, is confirmed by the analogy of other animals; and particularly of horses, the most beautiful animal on earth next to man, and of more use and ornament to us than any other. Although Arabia be the parent country of fine horses, all the horses there are far from being equally good; for they have vulgar horses that they value very little: And among those that are good, they make a great distinction, dividing them into three races, and these again into families, which they call Noble, whose genealogies they preserve, as I have said, most carefully, taking care that the race is not debased by any vulgar mixture; and they set so high a value upon them, that it is very difficult to get any of these high bred horses out of the country: Nor do I believe that any one horse of the first race ever came to Europe; and I doubt much whether any mare of any of the three races ever was seen in Europe; for they are more careful of them still than of the horses, imagining, and, I believe not without reason, that

that the virtues of the race are propagated chiefly by the females*.

If not to material, to what causes, then, are these differences, that we observe among animals and their races, to be ascribed? And I say to Mind; directly and immediately to those inferior Minds which animate every thing in this universe, but ultimately to that Supreme Mind, who has willed that there should be such a variety in his creation, for reasons which, in other things, it may not be easy to discover; but, with respect to Man, I hope it will appear, from what is to be said in the sequel, that the scheme of Providence could not have been carried on, without a distinction of men, and of families of men.

I will conclude this chapter with observing, that, whether my philosophy be true or false, it is at least consistent with itself: For, if it be true what I have endeavoured to prove in the preceding volumes,

* In Barbary, where the horses as well as the people are originally of Arabic extraction, they set so high a value upon mares, that they are prohibited to be carried out of the country under pain of death: And M. D'Arvieux, in his *Memoirs*, vol. 4. p. 60. tells us, that a man was hanged at Tunis for assisting to smuggle out of the country some mares for the King of France.—I have been told, that Lord Algernoon Percy, who travelled in Arabia, got a mare carried out of the country with a great deal of trouble and expence. Of what race she was, I do not know; but she died, as I was informed, at Marseilles, where she landed. The difficulty of getting her out of the country, persuades me that there is the same law in Arabia that is in Barbary.

The best Arabian horse, that, I believe, ever was in Europe, belonged to a Scotch Nobleman, the late Earl of Galloway. He was a mountain Arab, (for the mountainous country of Arabia being the best, breeds the best horses), and was given in a present to Marechal Keith, by the Bashaw of Bender, upon the conclusion of a treaty of peace betwixt the Turks and Russians. He was a horse of great size, being near to 16 hands high. He was the Bashaw's own horse upon which he fought; and he had the marks of several wounds in his body. He arrived safe at his Lordship's seat of Polton; but was killed soon after by a doze of physic.

lumes, that Mind is not only what moves every Body, but that which constitutes the essence of every animal, vegetable and unorganized Body *, it must follow of necessary consequence that it is Mind which makes the difference among men as well as among other animals. And that, therefore, those who say that climate, soil, air and water, are the causes of those differences, mistake concomitant circumstances for causes ; for the fact truly is, that Providence has been pleased to place different animals in different portions of this globe, without any regard, as appears, to any of the circumstances above mentioned. And further, it may be observed, that there have been such changes of inhabitants upon this earth, and particularly of men, that it is not easy to say, of what country any race of men is indigenous.

* See Vol. ii. Book ii. Chap. ii. p. 72.

C H A P. XII.

The several Varieties of the Human Species.—Some acknowledged—others doubted of, or disbelieved.—1st, The Men with Tails—Men with one Leg greater than another.—Men with but one Leg :—This disbelieved by Strabo.—Incredulity about Antient Natural History as well as Civil, began as early as the Days of Strabo and Juvenal—Men with Eyes in their Breasts.—Authority of St Augustine for this Fact.—Men with one Eye in their Forehead, proved by the same Authority.—The Existence also of Mermaids, or Sea Men, proved by concurring Testimonies, Antient as well as Modern.—Aristotle's Maxim, that every thing which can exist does exist.—This explained, and the Reason of it given.

IN the preceding Chapter, I have accounted for the varieties of the human species in the same way that I account for the varieties of all things in Nature. In this Chapter, I propose to inquire what those varieties of our species are, and to enumerate them, so far as they are known ; for we cannot perfectly know the Natural state of Man, unless we know all the different forms in which he appears in that state. As to the alterations which Man has been pleased to make upon himself, they do not belong to our present subject.

There are many of those varieties about which there is no dispute. And *first*, it is certain that, in respect to colour, there are white, black, and red, with all the different shades of these several colours : And that these are natural distinctions of Men, not the effect of climate or of art, as some have imagined, I think, is certain, because we find them in all the different climates of the earth, and where
the

the manners and customs are very different. As to the white Negroes, and the spotted or pyebald Men that a Swedish officer, Strahlenberg, says he saw in Siberia, I hold them not to be natural distinctions, but the effects of disease.

2do, The distinction of great and small, not only among individuals and families of the same nation, but among different nations, I hold also to be a natural distinction, independent of climate, food, or manner of living.

3tio, I hold that there is a natural difference betwixt the faces and shapes of men in different nations and countries. Thus, both the features and the shape of an African Black are very different from those of an East Indian. And there is a very great difference betwixt men in the colour and quality of their hair, as well as of their skin. All the inhabitants of Asia, Africa, and America, without exception, as far as I know, are black haired; and some of them have woolly hair, such as the Negroes of Guinea: But a considerable part of the inhabitants of Europe are fair or brown or red haired, or different shades of these colours, such as the Swedes and Danes and a great part of the Germans, and such as of old all the western nations of Europe, and particularly the Gauls, were, that being the complexion of the whole Celtic race. But, at present, the inhabitants of France have almost all black hair, which persuades me that the Franks were originally a nation that came from the East, where the Tartars, who now inhabit that country, are at this day all black haired. The Greeks, some of whom were, at the time of the Trojan war, as we learn from Homer, yellow haired*, are now black haired; and so are the Italians. And, as to the British, I am persuaded they were of old all of the Celtic complexion: Nor do I believe that, two thousand years ago, there was one black haired man in Great Britain. But now the people are so much mixed of such different races, that

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L i

there

* Homer gives Menelaus the epithet of *ξανθός*, and the hair of Achilles was also yellow.

there is hair of all different colours : And it is only in some remote parts in the Highlands of Scotland that the antient red Caledonian hair is preserved.

The distinctions I have hitherto mentioned are pretty well known ; but there are other differences in the human form, that are not so well known, and by many are believed not to exist.

And first, there are the men with tails. There are many, I know, who will not believe that such men exist, for the same reason that they will not believe that the Oran Outan is a Man ; because they think the addition of a tail to the human form would be a disgrace to human nature. But, in the Origin and Progress of Language *, I have given such authorities for the fact, that we cannot disbelieve it, or even doubt of it, without rejecting all human testimony, and resolving to believe nothing but what we have seen. I will only add here one testimony from an antient author to the authorities there quoted ; not that I think any further evidence in the case is necessary, but because it is a further confirmation of what I have so much insisted upon in this work—the wonderful agreement betwixt antient history and modern travellers. The testimony I mean is that of Pausanias †, who gives an account of satyrs, or men with tails, which he had from one Euphemus, who was an eye-witness of what he related. This man, upon a voyage to Italy, was driven by a storm into the Atlantic Ocean, and was there forced ashore upon one of several islands, known to the sailors by the name of the *Islands of Satyrs*, being inhabited by men with tails, some of whom wanted to come aboard the ship, but the sailors would not allow them ; and, as they knew it was some women they had in the ship whom they wanted, in order to satisfy them, they gave them a Barbarian
woman

* Vol. I. Book ii. Chap. 3. page 257. Second Edition.

† Lib. i. page 54.

woman that they had on board, whom they used, not only in the natural way, but in every other way possible. They had tails, he said, not much less than the tails of horses; but they made no use of speech.

There is another variety of our species, that, I think, much more incredible, and which, I confess, I am very unwilling to believe, though Monsieur Buffon, who does not believe in the men with tails, seems to give credit to it. It is this, that there are men somewhere in India, who are born with one leg much bigger than the other *. This is mentioned by no antient author, and is, I think, a very much greater deformity than the prolongation of the rump-bone into a tail; being such an incongruity and disproportion of parts, as, I am persuaded, is not to be found in any other animal.

I am much more disposed to believe what an Esquimeaux girl, who was taken prisoner by the French, related after she had learned to speak French, That she had seen a whole nation of men with but one leg. The story is told, both by Charlevoix, in his Account of Canada, and by Maillet in his Telliamede †, who adds, that the girl, after having been several times examined and re-examined, stood constantly to the truth of the fact. Neither is antient authority here wanting; for Strabo mentions several authors, whom he names, that speak of men with one leg ‡. Strabo, indeed, says, that he looks upon it as a mere fable: But I observe that a spirit of incredulity was begun as early as the days of Strabo, not only with respect to the works of Nature, but also with respect to the works of men in antient times; for Juvenal, who lived in the days of Domitian, rejects as a fable the sailing round Mount Athos by

I i 2.

Xerxes,

* Buffon's Nat. Hist. tom. iii. p. 414.

† Telliamede, page 254.

‡ See Origin of Language, Vol. i. p. 268. of the Second Edition. Strabo calls them *Μονοσκελεις*.

Xerxes, when he invaded Greece--his bridging the Hellespont—and with his army drinking up whole rivers *, though no man, who reads Herodotus, can doubt of the truth of any of those particulars.

There is another singularity of our species, which Strabo likewise says he does not believe, though attested by the several authors whom he names. It is that of men who had their eyes in their breasts †. To the authors he quotes, I will add a Bishop and a Father of the Church, who relates, that when he, with other servants of Christ, went to Æthiopia to preach the gospel there, he saw many men and women without heads, but having great eyes in their breasts, their other parts being such as ours. And he relates such circumstances concerning their priests, as show that he had been some time among them, and was well acquainted with them ; so well, at least, that it was impossible he could be mistaken in what he says of their

per-

* ————Creditor olim

Velificatus Athos, et quicquid Graecia mendax

Audet in historia ; cum stratum classibus iisdem

Suppositumque rotis solidum mare. Credimus altos

Defecisse amnes, epotaque flumina Medo

Prandente, et madidis cantat quae Sostratus alis?

SAT. x. V. 173.

The state of the world, particularly as to numbers, was so much altered, even when Juvenal wrote, that I am not much surpris'd that he, judging, as many now do, of past times by the present, should not believe in the millions of men that Xerxes brought with him into Greece, and all the wonderful works he performed with them. But there was one of them, viz. the bridging of the Hellespont, in which, I think, he might have believed, because there was something like it done a very little before his time by Caligula the Emperor ; I mean the bridging a bay of the sea from Baiae to Puteoli, (a length of three miles and six hundred paces, greater than the length of Xerxes' bridge), across which Caligula drove his chariot in triumph over Neptune and his waves. See Suetonius's account of the work. *Caligula*, Cap. 19

† See Origin of Lang. Vol. i. page 268. Second Edition. Strabo calls them *Στεροφθαλμοι*. Pomponius Mela, who, I think, is an author of good authority, and as such is quoted by Pliny the Naturalist, mentions a people of that kind in Africa, whom he calls Blemmii. Of them he says, ' Blemmiis capita absunt, vultus in pectore ;' Lib. i. Cap. 8. *De Situ Orbis*. Nor does he give this as a report only, but as a fact, of which he does not appear to have doubted.

persons *. And with the Bishop and the authors quoted by Strabo, agrees what Sir Walter Raleigh tells us he heard, (for he does not pretend he saw it), when he was in South America.

There are very few, if any, who do not believe that the one-eyed Cyclops of Homer is a mere poetical fiction. And they give as little credit to what Herodotus the historian † relates of the *Arimaspians*, a people of Scythia, who from that quality had their name, of which he has given us the etymology in the Scythian language. But, if we will believe the same Bishop, it is a fact, and no fiction; for he says that, in the lower parts of Ethiopia, he saw men with only one eye in their forehead; and of them he relates such particulars as show that he must have been some time among them, and could not have been mistaken in such a remarkable particular concerning their persons ‡. And what temptation he had to lie, either with respect to this fact, or what is related

above,

* ‘ Ecce ego jam Episcopus Hipponiensis eram, et cum quibusdam servis Christi ad Æthiopiam perrexi, ut eis sanctum Christi Evangelium praedicarem; et vidi-
mus ibi multos homines ac mulieres capita non habentes, sed oculos grossos, fixos
in pectore, caetera membra aequalia nobis habentes; inter quos sacerdotes eorum
vidimus uxoratos; tantae tamen abstinentiae erant, quod, licet uxores sacerdotes
omnes haberent, nunquam tamen nisi semel in anno eas tangere volebant, quâ
die ab omni sacrificio abstinebant.’ *S^{ti} Augustini Operum, tom. 6. Coll. 345. Edit. Parisien. 1685. Sermo ad Fratres in Eremito, 37.*

† Lib. iv. cap. 27.

‡ ‘ Vidimus et in inferioribus partibus Æthiopiae homines unum oculum tantum in fronte habentes; quorum sacerdotes a conversationibus hominum fugiebant, ab omni libidine carnis se abstinebant, et in septima, in qua diis suis iura offerre debebant, ab omni labe carnis se abstinebant; nihil sumebant nisi metretam aquae per diem; et, sic contenti manentes, digne sacrificium diis suis offerebant.’ *S^{ti} Augustini ibidem.* Nor is this fact, however extraordinary it may seem, destitute of more antient authority. Strabo mentions a people of that kind in India, Lib. xv. p. 711. But he treats it as a fable, as well as the story of the men with one leg and of those with eyes in their breasts, though he relates it upon the authority of Megasthenes, who was in India, and appears to me to have been better informed concerning India than any other antient author. And accordingly it is from him that Strabo has taken the greatest part of what he relates concerning India.

above, even if he had not been a Bishop and a Father of the Church, I cannot discover.

I will conclude this account with one other variety, and that more extraordinary than any I have hitherto mentioned. But neither is it destitute of antient authority ; so that I may apply here what Solomon has said, ‘ That there is nothing new under the sun ;’ which, indeed, may be applied to all my philosophy, and all the facts I have advanced to support it. The variety I mean is that of sea-men and sea-women, commonly called *Mermaids*. The account I am to give of them is taken from a Dutch book, which is very rare, and not translated, as far as I know, either into French or English ; and therefore I will give it in the words of the author, who is one Valentyn, minister of the gospel in Amboyna and Banda. He lived in the beginning of this century, and has written a natural history of India, which I am told is the best extant. A friend of mine, who has favoured me with a translation of the passages from it that follow, assures me that the author was a man esteemed by the Dutch of Batavia (among whom my friend lived for several years) to be a man of perfect veracity, and, from what he has collected concerning the Mermaid, appears to have been a man of learning, and of great curiosity and industry.

In his Third Volume, which treats of Amboyna, and the islands in its neighbourhood, he says, ‘ It seems very certain, that, in former times, Mermaids have been seen here.

‘ In the Company’s Daily Register for the year 1653, there is inserted, That Lieutenant Trans Male or Smallen saw, at the time he was sent with some men on an expedition in the Bay of Houndelo, as did all the people that were with him, in clear day-time, two Mermaids, the one greater, the other smaller, which they took to be man and wife, swimming together : That the hair of their head hung over the neck, and that it appeared between a green
‘ and

‘ and grayish colour ; and that they could see they had breasts. They
 ‘ were, all above the waist, shaped exactly as a human creature ; but,
 ‘ from thence downwards, they seemed to go tapering off to a point.
 ‘ About six weeks afterwards, near the same place, the like appear-
 ‘ ance was seen by the said Smallen, and upwards of fifty people
 ‘ that were with him.

‘ Alkert Herport, in his Account of India, Fol. 147. says. On
 ‘ the 29th of April, at Taynan, near the New Work, in the fore-
 ‘ noon, a man appeared three times above water ; and, on immediate
 ‘ examination, nobody was missing. In the afternoon, he appeared
 ‘ in like manner three times, near to the bulwark, called Hollandia ;
 ‘ his hair was long, and a mixture of green and gray colour.

‘ In 1712, it is said a Mermaid, or Sea-Woman, was taken alive,
 ‘ (near to the island of Booro), which was fifty-nine inches, or five
 ‘ feet long. She lived four days and seven hours, and then died,
 ‘ as she would not eat any thing. She was never heard to articulate
 ‘ any noise. It is said, that one Samuel Falvers in Amboyne pre-
 ‘ served the body for some time, and made out an exact description
 ‘ of it, by which it appears that her head was like a woman’s, pro-
 ‘ perly proportioned with eyes, nose, and mouth ; only the eyes,
 ‘ which were light blue, seemed to differ a little from those of the
 ‘ human species. The hair, that just reached over the neck, appear-
 ‘ ed of a sea-green and grayish colour. She had breasts, long arms,
 ‘ hands, and all the upper parts of the body, almost as white as a
 ‘ woman’s, but leaning somewhat to the sea-gray. Her body, be-
 ‘ low the navel, appeared like the hinder part of a fish.

‘ It is well known that many writers have handed down to us an
 ‘ account of what happened in the year 1403 or 1404. in the time of
 ‘ a great storm in Europe. Many dikes in Holland were broken
 ‘ down, betwixt Kampen and Edam, in the Zuyder Zee. A wild,
 ‘ or

‘ or sea-woman, was drove from thence, through a breach in the
 ‘ dike, into the Parmer Sea, and there taken by the boors of Edam,
 ‘ to which place they brought her, cleared her of sea-ware, and put
 ‘ cloaths on her. The people of Harlem heard of it, and re-
 ‘ quested to have her ; which was granted. She had, in the mean
 ‘ time, learned to eat victuals ; and they afterwards taught her to
 ‘ spin. She lived many years, and, as the priests said, had been ob-
 ‘ served to pay reverence to the holy crofs. She was allowed at her
 ‘ death a Christian burial. Many writers declare that they had spo-
 ‘ ken to people who had seen the sea-woman.

‘ Pliny (Book ix. Chap. 5.) says that the ambaffadors to Augustus
 ‘ from Gaul, declared that fuch sea-women were often feen in their
 ‘ neighbourhood.

‘ It is worthy of notice, what Alexander of Alexandria (Book iii.
 ‘ Chap. i. Genial. Dier.) says of fuch sea people : He was informed by
 ‘ Draconitas Bonifacius, a Neopolitan nobleman, a man of great
 ‘ honour, that, when he ferved in Spain, he faw a Sea-Man pre-
 ‘ ferved in honey, which was fent to the king from the neighbour-
 ‘ hood of Mauritian ; that it looked like an old man, with a very
 ‘ rough head and beard, of a fky-blue colour, much larger than the
 ‘ common run of men ; and that there were fmall bones in the fins,
 ‘ with which he fwam. This he related as a thing known to every
 ‘ one in that part of the world.

‘ Theodorus Gaza relates, That, when he was in the Morea, fuch
 ‘ a Woman was drove on that coaft by a violent ftorm ; that he faw
 ‘ her, and fhe was very well looked ; that fhe fighed, and feemed
 ‘ very much concerned when a number of people came round her ;
 ‘ that he had pity on her, and caufed the people ftand at a diftance ;
 ‘ that fhe profited by the opportunity, and, by the help of her fins
 ‘ and rolling, fhe got into the water and got off.

‘ Georgius

‘ Georgius Trapanzantius fays he faw from the fea-shore fuch a
‘ Mermaid, very handsome, appear feveral times above water. In
‘ Epirus, he fays, there appeared a Sea Man, who, for fome time,
‘ watched near a fpring of water, and endeavoured to catch young
‘ women that came there ; he was with much difficulty at length
‘ caught himfelf ; but they could never get him to eat.

‘ Ludovicus Vives relates, that, in his time, a Sea-man was ta-
‘ ken in Holland, and was carefully kept for two years ; that he
‘ began to fpeak, or, at leaft, to make a kind of difagreeable noife,
‘ in imitation of fpeech ; that he found an opportunity, and got into
‘ the fea. The Portuguefe fpeak of Mermaids as a common thing
‘ on the coaft of Zofala and Mofambique.

‘ Janius fays, in his time, at Swart Wall, near the Brile, the
‘ fkeleton of a Triton was hanging in the middle of the church.

‘ To this purpofe, a friend of mine tells me, he was informed by
‘ a fifherman, that, when he was a boy at Moflenfluys, near to Tou,
‘ they caught, in the night time, a Mermaid, half an ell long, that
‘ was perfectly like to a woman ; it died foon. He declared he had
‘ often feen things taken out of a cod-fifh which had that appear-
‘ ance.

‘ A gentleman of good character in the Hague told me, in the
1719, that he faw a very perfect fkeleton, at the houfe of a Da-
nifh envoy, which, he faid, had been caught near to Copenhagen.
‘ And Voffius fays, that there was once five or fix caught near Co-
penhagen ; and the fkeleton of one caught in the year 1644 is to
‘ be feen there..

‘ Joan Dilerey relates a curious story of some American fishers. One night, it being a perfect calm, they observed a Mermaid coming into their vessel, and they fearing it to be some mischievous fish, in the fright, one of them cut, with a hatchet, the creature’s hand off, which fell within board, and the creature itself sunk immediately, but came soon up again, and gave a deep sigh, as one feeling pain. The hand was found to have five fingers and nails, like a man’s hand.

‘ In the last age, one of the Dutch herring buffes caught a Mermaid in their nets. The man, who was taking out the herrings, was so confounded when he came to it, that, in his fright, he threw it into the sea. He repented too late of what he had done, when he observed clearly that it had a head and body like a Man.’

After the foregoing relations from reading and hearsay, the author, Mr Valentyn, declares what he saw himself on his voyage from Batavia to Europe, in the year 1714. ‘ In 12° 38’ south latitude, on the first day of May, about eleven o’clock in the forenoon, I, the captain, purser, and mate of the watch, and a great many of the ship’s company, it being very calm and the sea smooth as glass, saw, about the distance of thrice the length of the ship from us, very distinctly, on the surface of the water, seemingly sitting with his back to us, and half the body above the water, a creature of a grizlish or gray colour, like that of a cod-fish skin. It appeared like a sailor, or a man sitting on something; and the more like a sailor, as on its head there seemed to be something like an English cap of the same gray colour. He sat somewhat bent, and we observed him to move his head from one side to the other, upwards of five and twenty times; so that we all agreed that

‘ that it must certainly be some shipwrecked person. I, after looking some time, begged the Captain to order them to steer the ship more direct towards it, being somewhat on the starboard side ; which was done accordingly ; and we had got within a ship’s length of him, when the people on the fore-castle made such a noise, that he plunged down, head foremost, and got presently out of our sight. But the Man who was on the watch at the mast-head, declared he saw him for the space of two hundred yards, and that he had a monstrous long tail.

‘ I shall now only mention, that, in the year 1716, the News Papers were every where full of a Sea Man, who appeared in the month of January, near Ragusa, a small city on the Adriatick Sea, the like of whom I never heard or read of. It had much the resemblance of a Man, but it was near fifteen feet long. Its head was very large, and its feet and arms were well proportioned to its body. It appeared for several days running, and commonly came out of the sea about three o’clock in the afternoon, and walked with monstrous strides, sometimes in one, sometimes in another place, along the shore. People from far and nigh went to look at it ; but they were so much afraid, that they kept a good distance from it, and many looked with spy-glasses. It often carried its hand above its head. The hideous noise it made could be heard at half a mile’s distance, so that people in the neighbourhood were sore afraid of it. The various accounts given by those who saw it are so uniformly the same, that there is no room left to question the veracity of the story.’

Mr Valentyn then concludes with saying, ‘ If, after all this, there shall be found those, who disbelieve the existence of such creatures as Sea Men or Mermaids, of which we have at least gi-

‘ven great reason to believe that there are, let them please themselves; I shall give myself no more trouble about them.’

To these accounts of Mermaids given by Valentyn may be added what Bartholinus relates in his *Centuria Historiarum Anatomicarum Variarum*, printed at Haphnia 1654, p. 188. Where he informs us, ‘That there was in his time one of these animals caught upon the coast of Brazil, and brought to Leyden, and there dissected in presence of one whom he names, viz. Johannes de Layda, who made him a present of a hand and a rib of the animal. He calls it a Syren, and says it was the form of a woman down to the waist, below which it was nothing but a piece of unformed flesh, without any marks of a tail. He gives us the figure of the whole animal, both erect and swimming, as also of the hand which he got from de Layda.’

There is also, in a collection of certain learned tracts, written by John Gregory, A. M. and Chaplain of Christ Church in Oxford, published at London in 1650, an account of a sea-animal of the human form, very much like a bishop in his pontificals. It is said to have been sent to the King of Poland in the 1531, and to have lived for some time in the air; but it took the first opportunity of throwing itself into the sea. This story Gregory says he got from one Rondeletius, whose words he gives us, page 121. from which it appears that Rondeletius had the story only at second hand, from one Gisbert, a German doctor.

But the most circumstantial story of all is that which is told by Maillet, in his *Teliamede*, (page 241. of the English translation), of a Sea Man, that was seen by the whole crew of a French ship,

ship, off the coast of Newfoundland, in the year 1720, for two hours together, and often at the distance of no more than two or three feet. The account was drawn up by the pilot of the vessel, and signed by the Captain and all those of the crew that could write, and was sent from Brest by Monsieur Hautefort to the Count de Maurepas, on the 8th of September 1725. The story is told with so many circumstances, that it is impossible there can be any deception or mistake in the case; but, if it be not true, it is as impudent a forgery as ever was attempted to be imposed on the public.

These and such like facts I believe, as they appear to me sufficiently attested; and are not, as I think, by the nature of things, impossible; for there does not appear to me any impossibility or contradiction that there should be a marine animal of the human form, which can live in the water, as we do in the air, or even that this animal should not have two legs, as we have, but should end in a tail like a fish. There are, however, I know, many, who are disposed to set bounds to the works of God, and who cannot be persuaded that even the land-animal Man exists with the varieties I have described. But I follow the philosophy of Aristotle, who has said that every thing exists which is possible to exist*. Nor, indeed, can I well conceive that a benevolent and
omnipotent

* The words are, *Τὸ γὰρ ἐνδεχέσθαι τοῦ εἶναι οὐδὲν διαφέρει ἐν τοῖς αἰδίοις.* De Naturali Auscultatione, Lib. iii. Cap. 5. Paragr. 6.

This maxim, Aristotle, as we see, has restricted to things eternal; by which he means the things of Nature, (which he considered as eternal), in contradistinction to human actions and resolutions, with respect to which it is certainly not true,
that

omnipotent Being, infinite in production as in every thing else, should not have produced every sensitive Being that is capable of pleasure, and can enjoy a happiness suitable to its nature, whose existence is possible, that is, implying no contradiction; for, otherwise, there would be something wanting in the System of Nature, which would not be perfect and complete, as, I think, of necessity it must be.

That Mermaids, or Sea Men, which existed, as I have shown, so late as the year 1720, are still to be found some where in the Great Ocean, I have not the least doubt, though they appear to be but a rare animal. As to men with one leg, or one eye, or two eyes in their breast, whether they are yet any where to be found, I cannot say. But, if it were

that whatever is possible exists; and this distinction, I observe, is made by his commentator Simplicius, in his commentary upon the first book, *De Cœlo*, folio 66. where, in commenting upon these words of Aristotle, οὐδὲν διαφέρει σκοπεῖν, εἰ ἐστίν, ἢ γινεσθαι δυνατόν, he says, Τα γὰρ δυνατὰ γινεσθαι, καὶ μαλίστᾳ τὰ φυσικὰ, καὶ μὴ ἐμποδιζόμενα, καὶ γινονται ἂν, ἢ μάτην ἔχει τὸ δυνατόν. Τα δὲ κατὰ προκρίσειν δυνατὰ γινεσθαι, πολλὰ οὐκ ἂν γινόντο, μεταβληθείσης τῆς προκρίσεως, ἢ ἀλλοῦν καλυψείσης. Where the learned reader will observe, that this excellent commentator gives the reason for the maxim, viz. *that otherwise the possibility would be to no purpose*. Now, it is an axiom of Aristotle's natural philosophy, frequently inculcated by him, *that Nature does nothing in vain*. But, if the *Δυναμὶς*, or *possibility to exist*, was never carried to *Ἐνεργεῖα*, or *actual existence*, then the *Δυναμὶς* would be in vain, and there would be an eternal possibility of a thing existing, and yet that thing never exist. According to Aristotle, therefore, *Δυναμὶς* and *Ἐνεργεῖα*, in Nature, can never be entirely separated, but, at some time or another, the thing, that is *possible, must actually exist*. See further, upon this subject, Simplicius's commentary upon the same, First Book, *De Cœlo*, folio 76. There is another maxim of Aristotle's, laid down by him in this first book *De Cœlo*, which is connected with this, and deducible from the same principle. It is very shortly expressed in these words, οὐδὲν γινεται ἢ οὐκ ἐγινετο. The meaning of which is, *that nothing in Nature begins to be produced, or is in the act of production, without being actually produced*. See likewise Simplicius upon this first book, folio 52.

were certain that they no longer existed, it would not from thence follow that they never existed ; for we are sure that there are whole specieses of animals, which were once in certain countries, but are not now to be found there, such as wolves in Britain. And it is very likely that those extraordinary men in India and Africa, of whom antient authors speak, being, as is probable, but few in number, and considered as monsters by the other men in those countries, would be destroyed or exterminated by them, as it is likely the Troglodytes in Africa were, who, as Herodotus says, were hunted by the Garamantes, (an African nation), as if they had been wild beasts *. Other men, of the same monstrous appearance, have been, I am persuaded, destroyed in the same way, such as men with the heads of dogs, who have not been seen by any modern traveller, but of whom so many antient authors speak, that I can hardly doubt of their having once existed, though they are not now to be found †.

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* Lib. iv. Cap. 183.

† Photius, in his Excerpts from Ctesias *De Indis*, has given us the following account of them : They were, says Ctesias, a people in the mountainous country of India, near to the river Indus, and were called by the Indians *Καλυστῆς*, in their own language, which being translated into Greek, is *Κυνκεφαλῆς* or *dog-headed* : And they had the tails, as well as the heads, of dogs. They had, he says, no use of speech, but supplied the want of it by gesticulation, and a noise they made like the barking of a dog. He says, they lived in society together, were about 120,000 in number, were very expert archers and throwers of the dart, paid yearly to the King of India 1000 talents of silver, by way of tribute, and he, in return, every fifth year, made them a present of 30 myriads of bows, as many darts, 12 myriads of targets, and 5 myriads of swords. In short, he relates so many particulars concerning them, that they must have been a nation at that time very well known.

With Ctesias concurs Ælian, *De Natura Animalium*, (Lib. iv. Cap. 46.) who adds, that some of them were brought to Egypt in the time of the Ptolemies, where they learned letters, to play upon the pipe and harp, and to dance ; and they went

I will conclude this Chapter with two or three observations. And, in the first place, from what has been said, it must be evident that there is a wonderful variety of the human species, even in its natural state, much greater than of any other animal known : And the

went about, he says, and collected money for showing themselves ; (Ibidem, lib. vi. Cap. 10.) And he relates other particulars of them, (Lib. x. Cap. 30. and Lib. vii. Cap. 19. of the same work). Pliny also speaks of them, without saying any thing to persuade us that he did not believe in their existence, (Lib. vii. Cap. 2.). And Solinus, and Aulus Gellius, speak of them in the same way ; also Agatharchides, in his work upon the Red Sea, (p. 62. of H. Stephen's edition), who agrees with Ælian, that they were to be seen in Alexandria in his time, having been sent thither from Ethiopia and the country of the Troglodytes ; and with them some Sphinxes, of the same shape with those represented in painting and sculpture, that is, of a mixed form, partly lion and partly man. The Sphinx, he says, is by Nature a tame and gentle animal, and capable of being taught motion to music ; whereas the Dog-headed Men, he says, were exceedingly fierce, and very difficult to be tamed. This author, Agatharchides, I have elsewhere mentioned, (p. 50.), where I have said, that I did not know that such an author now existed, till I was informed that he was still extant, by a friend of mine in London, whom I think myself now at liberty to name, Sir George Baker, *κατὰ φύσιν, πολλὰν ἀνταξίαν ἄλλων*, and who, besides, is a most worthy man, and one of the best scholars that I have known even in England. The work is entitled, *Excerpts from Agatharchides, concerning the Red Sea*, by which name the antients denoted the Indian Sea, of which, what we call the Red Sea, is only a gulph. It is not translated ; and therefore is only known to the few learned. I have read it over from beginning to end, and find it a most curious collection, concerning all the different savage nations in Africa, which were discovered by the third Ptolemy of Egypt, in the manner I have mentioned, who appears to have been a lover of knowledge, and of much greater curiosity than most Kings. Some of the nations he mentions are still to be found in Africa, particularly a nation that he calls *Ακρίδοφαγοί*, or *Grasshopper-Eaters*, whom he describes exactly as Sir Francis Drake has described them, inasmuch that one should have thought Sir Francis had copied from him.—See Sir Francis's account of them in Buffon, Vol. iii. p. 451. which the reader may compare with Agatharchides, (p. 57.). And he gives an account of a people in Ethiopia, who hunt Elephants, and feed upon them, (p. 55.) which agrees very well with what I have heard from Mr Bruce, concerning the same people.

the variety also, both of Mind and Body, in the civilized state, is very great. For, in the first place, the civilized man is exceedingly different from a perfect savage: Then a civilized man, in the first stages of society, is very different from the same man in the latter periods: And a philosopher, and a man of science, is very different from an ordinary man in every stage of the social life. And, when we join to all these varieties the differences, which I have shown, exist betwixt individuals and families in the same age, and in the same country, I think, we may conclude, with great certainty, that what I have said in the beginning of this volume is no more than the truth, that Man is the most various animal which God has made, so far at least as we know. And, as he is undoubtedly the most excellent animal on this earth, he is therefore, of all created things, the noblest subject for the study of the philosopher, at the same time, that it is the study the most important and interesting to him.

2do, The varieties of the human species being so many and so different from one another, it would be wonderful, indeed, if there were not to be found in it the common variety of size, not greater, M. Buffon says, than of a foot in height, more or less*. In the dog-kind, in which the variety is much less than in the human, there is a very much greater difference of size from the Irish wolf-dog, to the dog that lies in a lady's lap. I am so far from thinking that the size of the Patagonians is a thing incredible, that, on the contrary, I should think it absolutely incredible, even in theory and speculation, and, setting aside facts altogether, that there were no men upon the face of the earth taller than we are, by more than a foot, or that the unnatural life continued from generation to generation for so many hundred years, should have made no alteration in the size, as well as in the strength and health of men in different ages of the same nation.

Lastly, What has been said in this Chapter, must, I think, convince the reader more and more of the truth of an observation, which I have more than once made in the course of this work, that there is a wonderful agreement betwixt the relations of antient authors and of modern travellers. Books of travels, though I know they are despised by many, are, in my opinion, the most instructive of all the modern reading, and that pursuit of wealth, which has carried us all over the world in search of it, has produced at least one good effect among the many bad, that it has enlarged very much our stock of natural knowledge; and yet I cannot help observing, that, whatever discoveries it may have enabled us to make as to minerals, plants, and other animals; yet, with regard to man, I do not know, that, in all our travels, we have discovered any one thing concerning him, that is not to be found in some antient author; and some things concerning him I have shown were known to the antients, which have not been seen by us. Such discoveries, therefore, made by the antients, in relation to the chief subject of human knowledge, ought at least to have this effect, that they should make us esteem and study those antient authors more, and put a stop to that disregard, and even contempt of antient learning, which, I am afraid, is daily increasing, and has gone near to put an end to it, in some countries of Europe.

C H A P.

C H A P. XIII.

To inquire how the natural State began, not the subject of this Volume.—Plato does not carry his State of Nature so far back as the Author does.—The Men in Plato's Natural State lived in the Cyclopean manner, upon Tops of Hills.—In all Countries, before Civil Government was well established, Men appear to have lived in that Way.—Monuments of this yet remaining in Scotland.—Apology for dwelling so long upon the State of Nature.—It is the Natural History of Man, as distinguished from his Civil History.

TO inquire how or when the natural state began does not belong to the subject of this volume, but to that where I am to treat of Nature, to which Man, in his Animal State, according to my definition of Nature, belongs *. There it will be proper to examine that grand question agitated among the antient philosophers, concerning the eternity of the Material World, and particularly to inquire, Whether this Earth was always in the form we see it in ? or, Whether, as we are sure it has undergone some changes, it may not, in very remote times, have undergone still greater ? and Whether Man, the chief Animal in it, who has gone through so many states since the natural state, may not, at some time or another, have been, even upon this earth, in a state different from that natural state, or from any other state in which we have known

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him ?

* See the definition of *Nature* given Vol. ii. p. 360. where it is shown that *Nature* is Mind without intelligence acting in Body.

him ? Such a state, Plato, in the *Epinomis*, supposes him to have been in, when he says he was governed by Gods or Superior Intelligences, in the manner we govern our herds and flocks ; a notion, that, I am persuaded, Plato got in Egypt, the antient Gods of which are supposed, by some authors, to be Genii, or Demons of Power and Intelligence superior to Men.

It may be observed that Plato, in his third book of *Laws*, where he gives an account of the state of Man before the institution of civil government, does not carry matters so far back as I do ; for he supposes there, a country wholly destroyed by a flood and inundation, which swept away the men, with all their arts, excepting only a few shepherds on the mountains, with their flocks or herds. But these men had the use of language, and of Fire ; they had also what he calls the Plastic Arts ; and they likewise understood the business of pasturage, and used the flesh of their herds and flocks for food, upon which, and what they killed in hunting, they lived ; so that he supposes them to be likewise hunters. And, besides all this, he makes them live a Cyclopean kind of life, as described by Homer, upon the tops of hills *, each family by itself, without forming

* In this way, it appears to me, that all men of old lived before civil government was well established, and while the country was possessed by small states, that were almost continually at war, and ready, upon the slightest occasions, to make incursions into one another's territories. In this way, the Romans, under their first kings, lived, inhabiting what they called *Pagi*, which were fortified places, upon the tops of hills, to which they retired when the enemies invaded the low country ; see Dionysius's *Antiquities*, Lib. iv. Cap. 15. And that the people of Scotland antiently lived in the same way, is evident from the ruins of fortifications upon the tops of hills still remaining, where they secured both themselves and their herds and flocks. In place of these, in later times, came the castles of the nobility and gentry, of which there was a very great number in Scotland, four or five hundred years ago ; for they were then the only security that a man had for himself or family.

forming a nation, or having any other kind of government, except the Patriarchal. In this way the people of Chili live at this day, according to Fresier ; and the Patriarchs of the Jewish nation lived in the same way. Now, such men are far removed from the natural state. But Plato did not think it necessary for his purpose to go farther back ; or, perhaps, he had not heard of men in a state more natural than that described by Homer in his account of the Cyclops ; but later discoveries, even in antient times, such as those that Diodorus Siculus mentions, make it evident that there were then men to be found in a state much nearer to the original state. And modern discoveries have put it beyond all doubt that men may live without any of the arts mentioned by Plato, without speech, without clothes, without houses, without the use of fire, and even without society, as it is a most certain fact that solitary savages have been found, at different times, in different parts of Europe. And this being the case, I have chosen to consider Man in the mere animal state in which I think he actually did exist at some time, and in some part of the world ; or, though I had not proved his actual existence in that state, I think the progress which we know has been in the arts, shows evidently that there must have been a time when there were no arts at all ; for, where else can we stop in that progress ? Without considering Man in this way, I thought I could not have given a proper account of the animal part of Man's nature, as distinct from his intellectual ; nor marked accurately the progress from the *Animal* to the *Man*, without which I should have thought this part of my work very imperfect : For the progression of Man, from one state to another, is an essential part of his nature, distinguishing him from every other animal here below ; to which, if we do not properly attend, we never can perfectly understand the philosophy of Man, nor explain the scheme of Providence with respect to him, as will appear more evidently in the sequel. This I
would

would have those consider, who are offended with my supposing that Man was ever in the mere animal state, and once as void of intellect as any Brute.

I will only add further, that, in an age, in which natural history has been so much cultivated, it is surprising that so little inquiry has been made concerning the natural history of our own species, which, considered in contradistinction to his civil history, is nothing else but an account of his natural state. Now, before Rousseau, it does not appear to me that any modern author ever dreamed that such a state did exist, or could exist.

C H A P.

C H A P. XIV.

The Author's Apology for insisting so much upon the Degeneracy of Men in later times.—This must give great Offence to Vanity.—Objection, that this discourages Men from the Service of their Country —Answer, it is the Duty of every Man to prevent, or delay, as long as possible, the Fall of the State of which he is a Member.—It is an Advantage that the Rulers should know the Degenerate State of a Nation.—An Example of this from the History of Athens.—Another Example in the Case of the Constantinopolitan Emperors.—The Degeneracy of a Nation begins with the better Sort.—These become incapable of discharging the great Offices of State.—Other Men, from other Nations, must be employed in such a Case.—Examples of this from the Constantinopolitan History.—Some Methods should be attempted of a better Education of our Nobility and Gentry.—A noble Example of this kind in Russia.—The Vanity of a Nation, such as the Romans, flattering themselves with the Eternity of their Empire.—Advantages that Men in private Life may reap from such Speculations.

BEFORE I conclude this Book, I think it is not improper to make some apology for what I have said of the degeneracy of men in civil society, and for the comparison that I have made betwixt antient and modern times, so much to the disadvantage of the latter.

Any

Any man who lives in this age, will be apt to think himself concerned in the defence of it, and particularly a vain man will be much offended to hear of its degeneracy, of which he himself must necessarily participate more or less : For vanity, as I have elsewhere observed, goes, not only to the present age, but to the past, and even to the future* ; and a vain man is disposed to think himself, not only as good a man, or, perhaps, better than any of his own age, but as good a man as ever was, or ever will be. But I do not write to flatter either the vanity of any particular man, or of the age in general ; but, on the contrary, the tendency of all my writings, is to correct a quality which is always greatest where merit is least, which makes a man as contemptible as odious, and is the greatest of all obstacles to his improvement in any thing.—To vanity, therefore, I make no apology.

But there are graver censurers, to whom I would desire to give satisfaction, if I could. These will ask me, What good purpose it can serve to show us that we are degenerated, and are daily degenerating more and more, especially if it be true, what I have said elsewhere, that what grows worse, and continues to grow worse, must at last come to an end † ? Is it not, it will be said, a discouragement to every man who labours to serve his country, to think that his labours can only bestow upon his country a short reprieve, and that it must infallibly perish at last.

But, to this I answer, that no wise man will neglect the care of his Body, though he knows, with the greatest certainty, that it must perish in a few years. The date of our body politic, it is hoped, will be very much longer, and therefore a good citizen ought to bestow more time and pains upon the care of it ; but, as certainly as King Hezekiah knew that the kingdom of Judah could not last, so certainly a philosopher knows that we cannot continue
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* Origin and Progress of Language, Vol. ii. p. 422.

† Vol. ii. p. 292.

(things going on as they are doing,) very long in the state we are in. And, though he cannot know, without that supernatural assistance which Hezekiah had, the particular time when the change will happen, yet, as the universe is a system, the moral as well as the natural world, and consequently governed by general rules, he will know, with great certainty, that, some time or another,

Venit summa dies, et ineluctabile tempus *.

But that will not hinder him to do all he can to put the evil day as far off as possible, and to preserve peace at least in his own time.

Further, I say, that it is a great advantage to a nation, or, at least, to the rulers of it, to know its degenerate state, even though it cannot be amended, that they may not engage in enterprises above their strength. It may be thought invidious to give examples of this in our own times; but I will quote one from antient history, which can give no offence. If the Athenians, when they engaged in the war against Philip, had been such men as those who fought at Marathon, and singly, without any assistance, except that of the small city of Plataeae, defeated the greatest force that was then in the world, or, had they been commanded by such a general as Miltiades, I think it would not have been imprudent in Demosthenes to persuade them to engage in that war: But, when they were so much degenerated as they then were, I think it was highly imprudent; and Demosthenes, instead of being the preserver of the liberties of Greece, as he proposed to have been, only hastened the loss of them: And it was still more imprudent, and, I cannot help saying, the next thing to madness, when, after the death of Philip, he

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endeavoured

* Æneid. ii. V. 324.

endeavoured to stir them up against Alexander his son. It was then, that Phocion very properly, I think, applied to him this line of Homer,

Σχιστλιε, τ. πλ' εθελεις ερεθιζουαι αγριον κιδρεα *.

Some of the later Constantinopolitan Emperors, and particularly Justinian, have been much blamed, both by cotemporary and later historians, for purchasing the friendship of the Barbarians with money. But, in my opinion, he did well ; for he put the evil day far off, and procured what Hezekiah wished for, peace in his own time : For Italy, and the Roman provinces, were then so much depopulated, and the Romans so much inferior to the Barbarians, not in numbers only, but in bodily strength and fierceness, that it was evident they must soon become a prey to them, as happened at last.

There is another consideration, which deserves the most serious attention of our rulers and legislators. Corruption of manners and degeneracy begin in every nation among the better sort, and from them descend to the people. While the nobility of Rome continued still to have virtue and abilities, the Romans were more than a match for the barbarous nations : But, after the families of the Scipios, the Caesars, the Fabii, the Curii, and the Fabricii, were either extinguished, or so degenerated as not to be able to sustain their dignity and fill their station in the state, the Roman empire declined very fast, though there was still strength and spirit in the people to resist the Barbarians when they were well commanded,

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* Odyss. ix. V. 494. It is Plutarch that tells this story, in the life of Phocion, p. 191. Vol. iv. in quarto. The Athenians, in the days of Philip, King of Macedonia, the successor of Alexander, were still more degenerate, when, as Livy tells us, *verbis ac literis, quibus solis valent, bellum contra Philipum gerebant*, Lib. 31. Cap. 44. ;—words which I never could read without much feeling for a people once so renowned in arts and arms.

notwithstanding their inferiority in size and strength of Body. A youth, taken from studying philosophy at Athens to command the Roman army in Gaul, (I mean Julian, who was afterwards Emperor), rescued that province from the dominion of the Barbarians, and carried his victorious arms into the heart of Germany. But, after that, the Constantinopolitan Emperors were obliged to employ, and it was the wisest thing they could do, Barbarians for their Generals. Such was *Ætius* under *Valentinian*, by birth a *Moc-fian* *, who saved the empire from that scourge of God, as he was called, *Attila*, the Hun, at the head of the greatest force that ever attacked the Romans at once, an army, it is said, of 500,000 fighting men †. And *Justinian's* two great Generals, who conquered for him *Africa* and *Italy*, *Belisarius* and *Narſes*, were, one of them a German and the other a Persian eunuch ‡. In short, it may be laid down as a proposition universally true, that no nation can flourish where the antient race of nobility and gentry is very much diminished in number, and those that remain of them so degenerated, and so unlike their forefathers, as not to be able to perform those duties, to which they are called by their birth and rank, of directing the councils, and leading the fleets and armies of the state to which they belong. This, I am afraid, is our case at present; and it appears to me, that our misfortunes of late have been chiefly owing to that cause. Now, if our governors were fully convinced of this, they would consider whether any method might be devised for restoring the better race of men among us, such as that which the Empress of *Russia* has contrived for preserving the nobility of her country.

In this plan, the Empress proceeds upon this fundamental maxim of the antient political philosophy, that the citizens of a well constituted

* *Jornandes, de Rebus Getecis, cap. 34.*

† *Ibid. cap. 35. et sequen.*

‡ See more upon this subject, p. 155.

tuted commonwealth ought not to be educated as the children of private persons, but as children of the state, and according to public wisdom, not private judgment. This rule it was impossible to follow with respect to all the citizens, in so great an empire as that of Russia; but the Empress has contrived to make it practicable with respect to the children of the people of the first rank; and, like the legislator of Sparta, she has not confined her plan to the education of the men only, but has extended it to the women. She has, therefore, erected two great schools or academies, one for male-children and the other for female, the first containing about 700 males, and the other about 400 females. She takes in both at the age of five; and keeps the males fifteen years, and the females twelve; and, during all that time, the parents see them but seldom, and never except by permission of the Empress. While they are there, they are taught every thing that may make them useful members of the state; the men, arts and sciences, the learned languages, and the modern that are of the greatest use, also riding, fencing, dancing, and all the military exercises; and the women every thing that is proper for their sex. The greatest care, at the same time, is taken of their diet, and manner of life. In Russia the bodies of men are ruined by the immoderate use of fire, and of baths excessively hot, by very warm cloathing, and by the drinking of spiritous liquors. In these schools there is no use of fire at all in chimnies; and, in their rooms, which are very large, they have only two stoves, one at each end, very moderately heated. They are not allowed the use of the hot bath; they wear no furs, and but thin cloathing; and they drink nothing but water; and, for the first two or three years they live only on vegetables, and, for the rest of the time, their table is very frugal and simple. The consequence of these regulations is, that they are remarkably healthy, and fewer of them die in the year than of any other class of people of the empire
of

of the same number *. In short, it appears to me that no better plan of education has been devised since the days of Lycurgus ; and it must make this great Princess, who has executed it and carried it on with so much care and attention for these fifteen years, adored by all those of her subjects, who have sense enough to know that it is impossible any nation can flourish, whose nobility and gentry are not properly educated.

How long any such institution in Britain would last, it is impossible to determine : But the example of the Romans should convince us how vain a thing it is for a people to flatter themselves, as they did, with the notion of the eternity of their power and empire. *Roma aeterna* we read upon many medals, and in many inscriptions ; and Virgil has used the standing of the Roman empire, and the government of the House of Æneas, as a comparison for a thing that never was to end :

*Dum Domus Æneae Capitoli immobile saxum
Accolet, imperiumque pater Romanus habebit †.*

And Horace, to the same purpose, prophesying the immortality of his own works, says,

—————*Usque ego postera
Crescam laude recens, dum Capitolium
Scandet cum tacita virgine pontifex ‡.*

Now,

* The account of this noble institution I had from the best authority, that of Dr Guthrie, the chief physician of both academies. I saw him frequently when he was in Edinburgh in summer 1782, and found him to be a very sensible and ingenious man.

† Æneid. ix. V. 448.

‡ Book iii. Ode 30.

Now, the House of Æneas, that is, the Line of the Cæsars, ended in Nero *, that is, in the third generation after Virgil wrote ; the city of Rome was several times taken and sacked by Goths and Vandals ; and Totila, one of the Gothic Kings, formed the design of destroying it altogether, and of making a pasture-field of the ground where it stood, and had advanced so far in the design, as to have demolished some part of the walls †. It is now but the poor remains of what it was, and may be said to be buried in its own ruins ; so that Rome is hardly to be found in Rome ‡.

If,

* Progenies Cæsarum in Nerone defecit. *Sueton.*

† Procopius, *Gothica Historia*, Lib. iii.

‡ The streets of Rome are at present raised eight or nine feet above the antient pavement, which, to that depth, is covered with ruins of buildings, pillars, statues, and other works of art, the finest, I believe, that ever existed, being collected from all parts of the world where art was to be found.—Even the Capitol itself, that *immoveable seat*, as it was thought, of the Roman empire, has in some sort disappeared ; for the valleys and hollows about it are so filled up with rubbish, that it is no longer the lofty citadel it was.

The epigrammatic turn, so unusual in my stile, given to the description of modern Rome in the text, is taken from an epigram of Janus Vitalis, an Italian poet, which, I think, is excellent of the kind, and which, I believe, the reader will not be displeased to read here.

Quid Romam in mediâ quaeris novus advena Româ,

Et Romæ in Româ nil reperis mediâ ?

Aspice murorum moles, præruptaque saxa,

Obrutaque horrenti vasta theatra situ :

Hæc sunt Roma : Viden' velut ipsa cadavera tantæ

Urbis adhuc spirent imperiosa minas ?

Vicit ut hæc mundum, nisa est se vincere ; vicit,

A se non victum ne quid in orbe foret.

Hinc victa in Româ victrix Roma illa sepult' est,

Atque eadem victrix victaque Roma fuit.

Albula Romani restat nunc nominis index,

Qui quoque nunc rapidis fertur in æquor aquis.

Disce hinc quid possit fortuna ; immota labascunt,

Et quæ perpetuo sunt agitata manent.

If, however, any nation might be excused for entertaining this vain conceit of the eternity of their empire, it was the Romans ; for the nations they had conquered were so thoroughly subdued, that there was not the least chance of their empire being destroyed by any insurrection or rebellion among them . And, if such swarms of people had not come from unknown regions, like men that had descended from heaven, I think the Roman empire might have lasted till the people had destroyed themselves by their vices and diseases ; which they certainly would have done sooner or later, and so have depopulated Europe, if they had not been prevented by the Goths, Vandals, and other barbarous nations, of whom almost all the present inhabitants of Europe are descended : For I do not believe that the descendant of the hundredth man that inhabited Europe in the days of Augustus Caesar, or of the thousandth at the time of the founding of Rome, is now remaining.—It is therefore true what Horace says,

Debemur morti nos nostraque;——

Not only individuals, but even nations, must die. And it may be said of every nation, what Homer says of Troy,

Ἔσται νικη, ὅτ' ἂν ποτ' ὠλώλη Ἰλίου ἵκη,
καὶ Πριάμος, καὶ λαὸς εὐμελὲα Πριάμοιο *.

These considerations tend to make the minds of men easy with respect to public affairs. And there are, besides, several advantages which accrue to private life from this philosophy.

In

* Iliad. vi. V. 448.—It is thus translated, or rather paraphrased, by Mr Pope :

Yet come it will, the day decreed by Fates ;
(How my heart trembles, while my tongue relates !)
The day when thou, Imperial Troy ! must bend,
And see thy warriors fall, thy glories end.

In the *first* place, there is nothing that aggravates and embitters misfortunes more than surprize and disappointment ; while, on the contrary, nothing alleviates them so much as expecting them, and so being prepared for them : And they will still fit lighter upon us, if we know that they are of absolute necessity. No man of good natural sense will grieve that he must die, because he knows that to be the fate of whatever is born, and, if he be a philosopher, he will likewise know, that families, and even nations, must perish, as well as the individuals of which they are composed, and must become old, like individuals, before they die, and consequently weak and diseased.

2do, If a man, in the declining age of a nation, has a disposition toward friendship, which every good man will have, he may have more enjoyment of it than in a better age. For, in the first place, he will not be apt to be disappointed, hardly expecting to find any man of worth and goodness fit to make a friend of ; and, if he does find such a man, he will be doubly fond of him, and will love him, as Hamlet does Horatio in the play * ; and with him retiring, and getting, as it were, under the shelter of a wall, (to borrow a similitude from Plato), will let the storm of life blow over him.

Lastly, There remains yet to be told the greatest advantage which this philosophy affords. It must convince us that, *if our hopes are*
in

* Hamlet says to Horatio,

‘ Since my dear soul was mistress of her choice,
‘ And could of men distinguish, her election
‘ Hath sealed thee for herself.——

And a little after he adds,

—— ‘ Give

in this life only, we are, of all men, the most miserable; for there is nothing more certain than that, in the present state of human affairs in Europe, if a man makes his happiness depend upon the success of public or private affairs, upon the prosperity of his children and family, or, in general, upon any thing in this world, he will in all probability live a life of disappointment and misery. The philosopher, therefore, and scholar will live as much as he can with virtue and science in the antient world: But, above all, he will look to the world to come, and prepare himself for it, by living a virtuous and religious life, being well assured, that whatever virtuous habits and good dispositions he shall acquire here, these he will carry with him to the other world, where he will have an opportunity of improving still more his stock of virtue and knowledge, and so will go on, advancing to a state more and more perfect, till, at last, he arrive at the greatest perfection of which his nature is capable.

And here I finish this Volume, in which I have treated of Man as an Animal, or, in other words, of the Natural State of Man.

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There

—— ‘ Give me the man

‘ That is not passion’s slave, and I will wear him

‘ In my heart’s core, ay in my heart of heart,

‘ As I love thee’——

And here I cannot help observing, though it be a digression from my subject, that Hamlet’s friendship for Horatio, his love of Ophelia, and his pious affection for his father, joined with something remarkably genteel and princelike in his whole deportment and behaviour, make him one of the most amiable characters that ever was represented upon a stage. There are also the finest sentiments in this play: But what a pity it is that a poet, with so much genius, had not learning or knowledge enough of the dramatic art to contrive for such a character and such sentiments a proper tragic fable, without any mixture of the comic, or ridiculous, so as to have made *a good piece*, instead of a work with only *splendid patches*.

There are, I know, who doubt, whether this state ever had a real existence : But such men have not learned rightly to distinguish betwixt the Animal and Intellectual creature ; nor have they observed that in all animals, even in such as are less composed than Man, and, indeed, in all natural things, there is a progress from an imperfect state to that state of perfection, for which, by Nature, the thing is intended. This is so evident to me, that, from theory only, though it could not be proved by facts, I should believe that Man was a mere animal before he was an intelligent Being, and that there was a progress in the species such as we are sure there is in the individual. I therefore hold, that whoever denies this progression of Man, is ignorant both of the History and Philosophy of Man.

In my next volume,

——‘ *major rerum mihi nascitur ordo,*

‘ *Majus opus moveo.*’——

I will there present to the reader a scene of man, in which he shall appear both as the noblest and as the most degenerate animal upon this earth : For, as human Nature is capable of the highest exaltation, so it is also of the lowest degradation, according to the common saying, That the corruption of the best things is the worst —But I hope to show that Man, even in his most wretched state, is still the care of Heaven ; and in this way I trust I shall be able

——*to assert Eternal Providence,*

And justify the ways of God to Men ;

—which to do is the design of this work ; and in such speculations I hope to live what remains of my life, and to die,—leaving to those, who call themselves philosophers in this age, their Lines and Figures, their Mensurations and Computations, and their facts of Natural History ;

Chap. XIV. ANTIENT METAPHYSICS.

History ; for I say again with Milton,

———‘ *me, of these*

‘ *Nor skill’d nor studious, higher argument*

‘ *Awaits ;*’———

—to treat first of the noblest animal on this earth, then of the highest being in the universe. To such speculations it is to be hoped that these gentlemen will at last ascend ; and that, after having demonstrated all the properties of lines and figures, computed and measured all the Motions within their observation, collected and arranged all the facts of natural history, and examined, with the greatest accuracy and minuteness, every thing in the animal, vegetable, and mineral kingdoms, they will then begin to philosophise, and will correct those errors which I may have fallen into by following too servilely, as they think, the Philosophy of antient times.

A P P E N D I X.

C O N T A I N I N G,

- I. Confirmations and Illustrations of what has been said in the preceding Volumes upon the Subject of the Principles of Sir Isaac Newton's Astronomy.
- II. An Inquiry into the Principle of the Motion of Bodies Unorganized.
- III. The Difference between *Man* and *Brute* further illustrated and explained, with additional Facts and Observations concerning the Orang Outang and Peter the Wild Boy.

C H A P T E R I.

The Design of this Work is to restore the Antient Philosophy.—In the preceding Volumes it is shown that Mind is the Author of all the Motions in the Universe.—The principal Motions that fall under our Observation are the Motions of the Celestial Bodies.—These made to be entirely Mechanical by Sir Isaac Newton when he wrote his Principia.—Some Alterations made in Sir Isaac's System by the later Newtonians—but all agree that the Progressive Motion of the Planet is carried on without Mind;—the only Question, whether, by Virtue of an Original Impulse, or by Virtue of a Vis Insita in the Planet.—But the Vis Centrifuga of the Planet irreconcilable with the Motion being by Virtue of an Original Impulse—therefore it must be by a Vis Insita.—Of the beginning of the Progressive Motion of the Planets.—The Newtonians now admit it is by Mind.—but it goes on by the Vis Insita, after the Energy of Mind has ceased.—This a most extraordinary Position.—Suppose the Body not projected in a Straight Line, but beginning its Motion in the Curve, examined what the Consequences will be—if the Motion will be still

still in a Straight Line when the Vis Centripeta ceases, with what degree of Velocity is the Motion carried on?—The Consequence of giving an innate Power to Body, both to begin and continue such Motions, is downright Materialism.—A Consequence of the First Law of Motion, that Body cannot go on in Vacuo, by Pressure, but only by Impulse.—The Motions of the Tides without Projection or Gravitation; and, if by a Vis Inſita, that Vis muſt begin the Motion.—The whole Newtonian System depends upon the firſt Law of Motion.—Of the Composition of the Planetary Motion.—In order to prove this, the Newtonians muſt prove one or other of three Propoſitions.—1mo, That it is impoſſible, by the Nature of things, it could be ſimple.—This a Geometrical Problem, and, if true, capable of Demonſtration.—If not demonſtrated Geometrically, it ought to be demonſtrated Metaphyſically.—Or, 2do, They muſt prove that the ſame Motion, if produced by different Cauſes, will not have the ſame Properties.—Or, 3tio, They muſt prove that all the Bodies in our Solar System gravitate towards one another.—The Proof from Analogy here altogether deficient.—No Proof, neither, from Final Cauſes.—The Deſcent of the Planet from the Tangent otherwiſe accounted for.—Of the Motion of the Earth upon its Axis.—This explained in the ſame Way as the Motion of a Stone in a Sling.—If the Newtonian System is laid aſide, then mine muſt take Place.—A ſhort Abridgment of it.—No Reason for the Newtonians maintaining ſuch Paradoxes, except to demonſtrate the Laws of the Planetary Motion.—This can be done without them by an eaſy Analyſis.—Answers to the Objection againſt Demonſtration by Analyſis or Hypotheſis.—If this demonſtration be good, then is the Newtonian System cleared of many difficulties and abſurdities.—Theſe reckoned up.—The Newtonians ought to give up theſe, or to defend them by more plauſible Arguments.—They ought to deal more in Diſtinctions than they have hitherto done.—Examples of their Deſect in this Reſpect.—The Authority of Dr Clarke in ſupport

port of my System.—No Reflection intended to be thrown upon the Science of Mathematics, but upon the abuse of it.—Instances of that abuse.—What the proper Subject of Mathematics is.—They explain the Cause of things, but only one kind of Cause.—The Newtonian Astronomy a most noble Science.—The greatness of the Discovery.—The only Error, in the Principles upon which it is founded.—These have a direct tendency to Atheism.

THE design of this great work, in which I am engaged, is to restore the pious philosophy of the Antients, which was once the only philosophy in Europe, but is now almost entirely lost; and, in place of it, is come a philosophy which certainly does not deserve the epithet I have given to the antient, to say no worse of it. In prosecution of this design, I have undertaken to shew that the Providence of God is over all his Works, over the natural as well as the moral world, superintending both the operations of Nature and the actions of men. In the two first volumes of this work, I have endeavoured to prove that all Motion, by which the whole business of nature in the material world is carried on, is not only originally from Mind, but is, for the greater part, produced by the immediate agency of Mind. But the philosophy of Mind, though it be, as I have shown elsewhere *, what only deserves the name of philosophy, yet is so little understood at present, that, although I have already said upon the subject much more than the philosopher may think necessary, yet I will, for the sake of those not accustomed to such speculations, and who are prepossessed with prejudices, arising from the mechanical and experimental philosophy, as it is called, add some further illustrations in this Appendix; and I will begin with my system concerning the Origin and Continuation of Motion.

OF

* Vol. ii. p. 457.

Of all the Motions in this universe that are visible to us, the greatest and noblest are those of the Heavenly Bodies : And, therefore, my philosophy of Motion would have been ridiculously imperfect, if I had not inquired into the principle of their Motion. This principle, according to the philosophy of Plato and Aristotle, is Mind, and Mind Intelligent ; and the same seems to be the philosophy of our Sacred Books, where we read of an Angel in the Sun *; but, according to a later philosophy, no older, as I have shown, than Sir Isaac Newton †, the Motion of those Bodies is carried on without Mind, by a *vis insita*, or *power inherent* in the Bodies themselves. This, say those philosophers, is the power by which the planet is carried on in its progressive Motion ; but it is by another power that the Body is directed in its progression, and carried out of the straight line into the elliptic. The first of these powers is called the *Projectile Force*, by which the planet is impelled in a straight line : The other is called the *Centripetal Force*, by which the straight line is bent into an ellipsis : And I think I have shown very evidently, that, when Sir Isaac wrote his Principia, he supposed that both Motions were produced by bodily impulse, as well as the Motion of the planet upon its axis ‡ ; so that, according to Sir Isaac's notions at that time, our solar system was altogether a machine going on of itself, without the agency of Mind, supreme or subordinate § ; by which I would not be understood to think that Sir Isaac ever, at any time, believed that the celestial Bodies were not created by the Deity, and the machine contrived and set in Motion by him, though, at the same time, I think, I have shown that it was not a machine worthy of Almighty wisdom

* Revelation, Chap. xix. verse 17.

† Page 14. of this Volume.

‡ Vol. ii. p. 320.

§ See the definition of a Machine, and the difference shewn betwixt a Machine and the Moving Power, Vol. i. p. 190. and 501.

wisdom and power, being such that it disordered itself, and therefore needed the mending hand of the artificer from time to time *.

The later interpreters of Sir Isaac's philosophy have thought that they improved it by supposing that one of the Motions, viz. the Centripetal, was produced by the constant agency of Mind. But, whether they have really improved Sir Isaac's system by making the Planetary Motion so much more complicated, as that two parts of three of it (I mean the Projectile Motion by which the Planet is carried on in its orbit, and its Motion round its centre,) are mechanical, and the third, that is, the Centripetal Motion, by Mind, may, I think, with good reason, be doubted †. But, be that as it will, there is one thing, in which I understand that all the Newtonians are at present agreed, (unless, perhaps, some few of them, that are philosophers as well as mathematicians, such as Dr Horsley is, and Dr Clarke was), that the Progressive Motion of the Planet goes on by virtue of an original impulse, in consequence of Sir Isaac's first law of Motion. And the only question among them is, whether this be the effect of the original impulse alone? Or whether there be not also a *vis insita*, or *power inherent* in the body, and essential to it, by which the Motion has been carried on for so many thousand years after the original impulse had ceased?

When I wrote my second volume, the Newtonians, with whom I had conversed and corresponded, were unwilling to allow that Matter had any such Power in itself, by which it could carry on Motion without any agency either of Mind or of other Bodies; and therefore they supposed that the continuance of the Motion was the

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effect

* Vol. ii. p. 329.

† Vol. ii. p. 331.

effect of the original impulse, or *vis impressa*, upon the body, and that there was no need to have recourse to any *vis insita* : And, accordingly, it is against this opinion that I have argued in the fifth book of my second volume *. But, upon further inquiry, and conversing with men more learned in the Newtonian philosophy, I find that it was not only the opinion of Sir Isaac that the Motion was carried on by a *vis insita*, which he has expressly distinguished from the *vis impressa*, but that it is impossible, without the *vis insita*, to account for the *vis centrifuga* of the planet, by which it has a constant tendency, in every part of its orbit, to go off in a straight line ; so that, if the centripetal force were to cease at any point of the orbit, the body would go on, not in the curve but in the tangent, at that point, and which may be in a direction quite different from the line in which it got the original impulse ; for the line of this tangent may be either parallel to the line of original direction, or perpendicular, or oblique to it. Now, this is absolutely inconceivable, if the Motion be carried on by virtue of one impulse ; for, in that case, it must go on in the line in which it was originally projected, and in no other.

Before I come to inquire into the consequences of an opinion which ascribes to matter a power of moving itself in so many different directions, it is proper to consider how the Progressive Motion of the Planets began. That Sir Isaac, when he wrote his Principia, supposed that it began by a bodily impulse, I think, is evident † ; but his followers, at present, are generally of opinion that it began by Mind : And, indeed, if a man is not an absolute materialist, he must admit that Mind is originally the author of all Motion ; and, if so, why should not he suppose that Mind has produced the Planetary Motion immediately and directly, without the intervention of other Bodies,

* Vol. II. p. 340.

† Ibid. p. 320.

Bodies, in the same manner as we know that Mind produces the Motion of our Bodies, and of other Animal Bodies, and also of Unorganized Bodies, such as the Iron and the Loadstone. Further, I think, it will not be denied by any Newtonian, that Mind may not only begin Motion, but continue it ; which we know, from daily experience, to be the case. Let us suppose, then, that the Planet is moved in the line of projection, or any other Body in a straight line, Mind both beginning and carrying on the Motion ; and let us suppose that the energy of Mind, by which the Motion is carried on, should cease——would the Motion still go on by virtue of the *vis insita* in the Body, in the same manner as if it had been begun by bodily impulse ? And they say it would : Nor, indeed, could the universality of the First Law of Motion, by which it is asserted that Motion once begun continues forever till it is stopped by some external obstruction, be otherwise defended. According, therefore, to this doctrine, our Bodies, once put in Motion by our Minds, would go on forever, even after the energy of our Minds had ceased, if it were not for the obstruction of the Medium in which we move.

This is a very extraordinary position, as contrary to common sense and observation as to sound philosophy. For, as it is admitted in the case supposed, that it is Mind which moves the Body, is it not more natural that, when the Mind ceases to move, the Body should cease to be moved ? And observe what the consequence would be if it were otherwise. The Body, while it continues to be moved by Mind, is also moved by the *vis insita*, which continues to move it after the other moving power has ceased to operate : So that we have here the Body moved by two powers, (I suppose in a straight line, that the argument may not be perplexed by the supposition of any compounded Motion), when it is evident that one is abundantly sufficient, contrary to that rule of Nature, which

Aristotle has laid down and Sir Isaac has adopted, “ That, as there is nothing wanting in Nature, so there is nothing superfluous ; and, therefore, she never does any thing by several powers that can be done by one *.”

But this position, however extraordinary, is not all : For, let me ask those gentlemen, whether or not they do not think it possible that Almighty Power, or some inferior Mind employed by him, might have moved the planet in its elliptical orbit, without first projecting it in a straight line ? And, I think, he is a bold man among them, who will deny the possibility of it : And, if it be possible, I say that it so was ; for, I think, I argue with great certainty from the *posse* to the *esse*, with respect to all the operations of infinite power and wisdom, which we must conceive to do every thing in the shortest and simplest way possible. Here, therefore, the planet, without being ever projected in a straight line, has nevertheless a tendency to move in a straight line, in all the different directions above mentioned. Now, this cannot be by virtue of the *vis insita*, as it is commonly understood, arising from the projection of the Body in a straight line ; but it must be another kind of *vis*, to which the Newtonians have not yet given a name, by which the Body, in whatever way its Motion is begun, has a tendency or disposition to move in a straight line, and to free itself from the constraint of any other motion imposed upon it. This is plainly giving to Body an *innate* power of motion, which Sir Isaac has said gravitation is not †, though it be likewise a motion in
straight

* ‘ Natuta nihil agit frustra; et frustra fit per plura, quod fieri potest per pauciora.—Natura enim simplex est, et rerum causis superfluis non luxuriat;’ *Principia Mathematica*, Vol. i. *Regula Prima Philosophandi*. And in this he agrees with Aristotle, who has said, speaking of the Motion of the Celestial Bodies, *that God and Nature do nothing in vain*.—‘Ο δὲ Θεὸς καὶ ἡ Φύσις οὐδὲν μάτην ποιοῦσι.—Lib. i. *De Cælo*, Cap. 4. *in fine*.

† See the words of Sir Isaac quoted, Vol. ii. p. 376.

straight line, and a much more constant motion, and which appears to be more essential to Body than this motion by the *vis insita*. And, if so, I should desire to know why gravitation should not be essential to Matter, and produced by a *vis insita*, as well as the Motion of a body projected ?

Moreover, the planet, in the case supposed, will, by its centrifugal force, have a tendency to move, not only in a straight line, but with an equable velocity. Now, this may be conceived, if the planet had been projected : For then it might have been moved in both ways ; and it might be said that it only retained the Motion that had been once impressed upon it. But, if it can begin a new Motion, quite different from the old in the elliptical line, not only in its direction but in its equability, (the elliptical Motion varying in every instant), and all this by a power innate and essential to it, I do not know what Body may not do by its natural powers.

Nor can the Centrifugal Motion of the Planet, in the case I have supposed, be supported by fact and observation, any more than by theory. In the case of other Centrifugal Motions, such as that of a stone in a sling, the Motion is produced by the action of Body upon Body, and by therepeated projection of the stone, which makes it at last fly off with great force *: And, accordingly, Sir Isaac has used the example of a sling to illustrate his theory of the Planetary Motion †, and very properly upon his hypothesis of the Planet being first projected before it is moved in an ellipsis. But where the Motion is begun by Mind, and not in a straight line, but in a curve, as in the case I suppose, it will not be pretended to be proved by any experiment, that, if the Body ceases to be moved in a curve, it will by the *vis insita* be moved in a straight line ; but, on the contrary, daily experience and observation shows that it will not.

Having

* See what I have said concerning the Motion of a stone in a sling, Vol. ii. p. 433.

† Vol. i. p. 524. 525.

Having thus shown in what way the Planetary Motion must necessarily have begun, I will now proceed to consider the consequences of such a power ascribed to Matter, by which a Body is carried on in a straight line, and with an equable Motion too, though it never was projected. In the *first* place, as in the case I suppose, the Body does not continue a Motion that it had once got, but begins a new Motion altogether different : This, in my apprehension, is sufficient of itself to destroy the distinction which the Newtonians are so fond of, betwixt the power of beginning and of continuing Motion, a distinction which has no foundation in nature ; for, in all the Magnetical, Electrical and Chymical Motions, and that common Motion of Gravitation, the same Power, which continues the Motion, begins it ; and, therefore, if there be a *vis insita* in the Planet which continues the Motion, why should not the same *vis insita* begin it * ? This innate power, therefore, in the Body, of moving itself in a straight line, though it had never been so moved before, we must suppose, can begin Motion, as well as continue it, like the other Motions above mentioned. And, when we consider how variously this power exerts itself, in lines of so many different directions, it will be difficult, and, indeed, I think, impossible, to convince a materialist that it may not have the power of moving itself in all directions, and of beginning Motion, as well as of continuing it.

I know, it will be said, that the planet moves itself in these different directions only occasionally, and in consequence of the impulse first given it : But to this I answer, that the animal is moved in consequence of the impressions made upon his organs of sense by external objects : But, will it be said that his Body is moved by a
vis

* See Vol. ii. p. 370.

vis insita in the Body, and not by Mind.—The iron is moved also only occasionally when the loadstone is within a certain distance of it, and not till then : And, shall we say that the iron is moved by a *vis insita*, and not by Mind ? If we go on in that way, must we not maintain that all the Motions in the universe are produced by a *vis insita* in Bodies ? And, as all the Motions in the universe are evidently for some end, and conducted by certain rule and measure, must we not give to matter Intelligence as well as a Power of motion ? and, indeed, when the Newtonians say that the Body moves itself in a straight line, in which it had never been moved before, and this uniformly with the same velocity as well as in the same direction, is not this giving to matter the power of doing things by rule and measure, which cannot be without intelligence ? And it is but to suppose that Body performs other Motions in the same way, and then we have complete the philosophy of Strato the Peripatetic, which was certainly the most rational system, (if any system of Atheism can be said to be so), that ever was devised, but which I do not suppose that the Newtonians are inclined to adopt*.

Another consequence of Motion, once begun, being carried on by a power inherent in Body and essential to it, is, that there can be no such thing as Motion by trusion *in vacuo* ; for otherwise it would not be true, in every case, that Motion once begun goes on by itself, because Motion by trusion ceases as soon as the Body protruding ceases to act ; therefore there is but one way in which Body acting upon Body can produce Motion *in vacuo*, and that is, by pulsion. Of this I have said a good deal elsewhere, and, I think, I have shown that it is a proposition as contrary to sound philosophy as to common sense †.

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* Vol. i. p. 240. 241.

† Vol. ii. p. 345.

A third consequence is, that Motion once begun can only cease in one way, that is, by the obstruction of the medium, whereas all philosophers before Sir Isaac Newton held that Motion ceased in two ways, either by the obstruction of the medium, or by the ceasing of the Moving Power to act. And, indeed, I think every man's daily experience must convince him this is the truth *.

And, lastly, if the Motion be begun by impulse, though the velocity of it will be different, according to the greater or less violence of the impulse, the duration of the Motion will be the same, that is, for ever ; and, therefore, an eternal Motion may be produced by the slightest impulse †.

I have heard it objected to this double cause which I assign for the ceasing of Motion, that one is sufficient, namely, the obstacle in the way of the Body in Motion, and that Nature is so frugal that she never employs two causes to produce the same effect, when one will do the business.—To which I answer, that Nature never employs two causes at the same time to produce the same effect, if one will do the business ; but, at different times and in different circumstances, different causes will produce the same effect. Thus, to give an example from the very thing we are speaking of, viz. Motion, and a Motion most perfectly simple, I mean Motion in a straight line, for which, if for any thing, one cause may be thought sufficient : This Motion may, according to circumstances, be produced by three different causes ; by the direct impulse of one Body, the lateral impulse of two, or, lastly, by Mind. We are not, therefore, to wonder that the cessation of Motion may be the effect of two different causes. *In vacuo*, it ceases only in one of the ways,

* Vol. i. p. 541.

† Vol. i. p. 540. Vol. ii. p. 348.

ways, that is, by the Moving Power ceasing to energize ; but, *in pleno*, it ceases from both causes, but operating differently in different circumstances, so that sometimes the one contributes much more to put an end to the Motion than the other. Of this we have daily experience in the Motion of animals, where the Moving Power ceases sooner or later, as the obstruction of the Medium is greater or less *. Cotes, therefore, in his Preface to the second edition of the *Principia*, is in the right, when he lays it down as a law of Nature, ‘ *Ut a pluribus causis ab invicem non nihil diversis, idem possit effectus proficisci.*’ Now, this Law of Nature the Newtonians deny, when they say that the ceasing of Motion can be produced only by one cause.

I shall have done with the *vis insita* when I have observed, that there are some motions here on earth, which I think it is impossible to account for by it, allowing it to have a real existence, unless we are to suppose that it can begin as well as continue Motion ; for, how else can we account for the Motion of the tides by a *vis insita*? And here, I think, the Newtonians must admit that there is a Motion without projection, and not only without gravitation, but in opposition to it ; and, if they say it is by a *vis insita*, they must allow this *vis* can begin Motion as well as continue it, or otherwise they must have recourse to the last refuge of Atheism, and which it has been reserved for the geniuses of modern times to find out, among other wonderful discoveries, viz. That Body can act where it is not, and, therefore, can move Bodies at a distance from them, and without any other Bodies intervening ;—a notion which Sir Isaac Newton has declared, in the strongest terms, to be altogether absurd †. But, upon the principles of my philosophy, it is easily to be explained, with the distinction I have made betwixt one Motion

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* Vol. ii. p. 365. 366.

† Vol. ii. p. 376. and 377.

producing another, and two Motions sympathying or corresponding one with another, which I have exemplified in a manner that must make it obvious to the most common understanding *.

I have been the longer upon this *vis insita*, that Sir Isaac's whole system, as it has been hitherto taught, appears to me to hang upon it, and particularly the composition of the Planetary Motion; for, if there be no *vis insita*, by which, according to Sir Isaac's first law of Motion, a Body projected is carried on for ever in a straight line, unless by some obstruction it be stopped, or turned out of its course, there can be neither *vis centripeta* nor *vis centrifuga* in the Planetary Motion, nor any composition of that Motion, but it must be simple and direct, as I suppose it; at least, it has hitherto been understood only to be composed in that way. But, I think, I have shown, that, upon the hypothesis of the Planetary Motion being begun directly in the elliptical line without projection, which, I think, must be the hypothesis of every theist, it is necessary that the Newtonians, if they still maintain the composition of Motion, must account for it in some other way.

And this leads me to inquire in how many different ways the Planetary Motion may be compounded. And, first, it is evident that there must be the action of two powers upon the Body, otherwise the Motion would be quite simple and uncompounded †. Now, these Powers must be either two Bodies or two Minds, or one Body and one Mind; and, besides these, there can be nothing else.

When Sir Isaac wrote his *Principia*, I think, it is evident that he understood the Planetary Motion to be immediately produced by the
action

* Vol. ii. p. 401.

† Of the nature of simple and compounded Motion, and the distinction betwixt the two, see Vol. ii. p. 389.

action of two Bodies, one of them projecting the Planet in a straight line, which gave it the Progressive Motion, and the other impelling it towards the centre; for, I think, it is very clear, that Sir Isaac had then no distinct Idea of Motion by Mind, nor, indeed, of the nature of Mind as distinct from Body, otherwise I think it is impossible that he would have endeavoured to account for gravitation by the action of aether or air, or some medium, *corporeal* or *incorporeal*, impelling the Bodies floating in it towards one another *. Even when he wrote his letter to Dr Bentley, which was several years after the publication of his *Principia*, he had no fixed opinion, whether gravitation was produced by a material or an immaterial agent †: And it appears that it was not till he wrote the *Queries* subjoined to the second edition of his *Optics*, when he first began to philosophise concerning the origin and continuation of Motion, that he determined the matter in favour of Mind; though even there he does not name Mind, but only speaks of *certain active Principles*, which, I think, must be Mind, as there is nothing else active in Nature ‡. According, therefore, to Sir Isaac's notion when he wrote his *Principia*, the composition of the Motion is produced, first, by the Projection of the Planet, and the *vis insita*, which carries it on in consequence of the Projection, and, secondly, by the Centripetal Force §. And in this way, I think, I have shown, that Sir Isaac's system is more consistent with itself than any that has been since devised §.

The next method of this composition I shall take notice of, is that which, I believe, most generally prevails amongst the Newtonians at present, viz. That the Progressive Motion is produced by
Body

* See Vol. ii. p. 324. where I have quoted the passage at large.

† See Vol. ii. p. 376.

‡ Ibid. p. 358. See also the above quotation from p. 376. where I have given a history of the progress of Sir Isaac's opinions as to the origin and continuation of Motion.

§ Page 289. of this Volume, and Vol. ii. p. 331.

Body in the way Sir Isaac supposes, but the Motion towards the centre by Mind.

Here there is this obvious inconsistency, that the two Powers producing the Motion are of natures quite different, the one being Body, and the other Mind ; an inconsistency which Sir Isaac has avoided. And it is a question which will naturally be asked by every one, but which, I think, is difficult to be answered, If Mind produce the one Motion, why should it not also produce the other ?

It is this difficulty, and to reconcile their system, as much as possible, to the philosophy of Mind, that inclines some of the Newtonians, with whom I have conversed, to adopt the third method of the composition of Motion, and to ascribe both Motions to Mind. According to this hypothesis, therefore, the Motion must be produced by two Minds ; for it is absolutely impossible that one Mind, or one Power of any kind, should at the same instant move the Body both to and from the centre.

If I should allow this opinion to be the truth, I think the Newtonians, who maintain it, must admit that they give up Sir Isaac's first law of Motion and his *vis insita*, by which he accounted for the composition of the Motion ; and, indeed, upon the supposition of the Motion being begun directly in the elliptical line, they must give up one half of their system, I mean projection ; and, if they will continue still to maintain that the Motion is compounded, they must say that it is otherwise compounded than of projection and gravitation : And, accordingly, these gentlemen say that the Motion is compounded, by one Mind tending to move the Body in a straight line, and by another bending it into a curve.

That, upon the hypothesis of the Motion being compounded, it is possible, by the nature of things, that it should be so compounded, I do not deny ; but I will endeavour to show that the hypothesis of the composition,

position in any way, is, by the nature of things, impossible. And I will bring the Matter to a very short issue ; for I say that the Newtonians, in order to prove that the Motion is in any way compounded, must maintain one or other of the three following propositions : Either that it is impossible, by the nature of things, that there can be a circular or elliptical Motion without the composition they suppose ; or, 2do, That, if it could be produced without such composition, the Planetary Motion so produced would not be governed by those laws which we know govern it, nor have those properties which we know it has ; or, lastly, That there does actually exist in our solar system, diffused through the whole of it, a *vis centripeta*, by which all the several planets tend towards the sun, in the same manner as Bodies here on earth tend to the centre of it.

As to the first of these propositions, I need not repeat what has been already said, and what, I think, must be admitted by every theist, that, if the universe be the production of infinite Power and Wisdom, every Motion in it must be as simple as possible *, and, if it can be produced by one cause, more than one will not be employed. This is a maxim in which both Aristotle and Sir Isaac Newton agree † ; and it is demonstrated, not indeed from geometrical or mechanical principles, but from principles much higher, I mean metaphysical and theological. Now, if it be true that the simple Motion is impossible, it is certainly a proposition which may be demonstrated by geometry ; for it concerns the generation of a geometrical figure, some of which, such as a cone or a cylinder, we know, Euclid has defined by the way in which they are generated. And, with respect to a circle, he has told us that it is a plain figure, comprehended under one line ; and it is a postulatam of his, that a circle may be described round any centre, and at any distance. And it has
always

* See the definition that I have given of simple and compounded Motion, Vol. ii.

p. 389.

† See Note First of page 292.

always been understood that a circle is generated by keeping one end of a straight line fixed, and moving the other round, till it form that one line, under which Euclid says the circle is comprehended. And, indeed, any the most vulgar man, without art or science of any kind, may, by describing a circle with his hand in the air or upon the table, satisfy himself that the Motion is not compounded, any more than the line it describes. I know it may be said, and I have heard it said, that the connection of the hand with our body makes the Motion compounded. But, without inquiring whether that be the fact or not, it is impossible to deny that we may have an Idea of a finger, or of any the least part of the hand moving by itself, and describing a circle : And, if the circle be one simple line, as Euclid certainly supposes it to be, it is very difficult to conceive how the Motion describing it should be compounded.—From all this, I think, I may infer, that it is not only the common sense of mankind, but the opinion of Euclid, and of all the geometers that have been since his time, that the circular Motion is in one simple and uncompounded line. And with the geometers agree the antient philosophers, such as Aristotle and Proclus, the former of whom has said that the circular Motion, and the Motion in the straight line, are the only simple Motions *. If, therefore, this proposition is to be geometrically demonstrated, it must be by a geometry beyond any that Euclid, or the antient philosophers, knew, such as the French call the *sublime geometry*, or the doctrine of the *infiniments petits*. Now, I have conversed with a man learned in that geometry, and who, I believe, is the best mathematician of the age ; and he assures me that the thing is neither capable of demonstration, nor true † : And I will hold it to be so, till the gentlemen who assert the contrary produce their demonstration.

I

* See what I have said upon this subject, Vol. i. of *Metaphysics*, p. 264. where I have quoted the passage, both from Aristotle and Proclus.

† The reader will readily understand that the geometer I mean is Dr Horsley.

I must therefore suppose, at present, that no geometrical demonstration of it can be given; so that, if it can be demonstrated, it must be by metaphysics, or the first philosophy; and it must be shown that Mind moves Body in the same way that Body moves Body, and therefore is subjected to the same laws of Motion, and, among other, to this, that it can produce no Motion except in straight lines, and therefore cannot move Body in a circle or ellipsis, as, I suppose, Mind can do, by changing the direction of it in every instant of the Motion. And this naturally leads to an inquiry into the nature of Body and Mind; and, I think, it will be incumbent upon the gentlemen, who undertake to prove this proposition, to show that Body and Mind are of the same nature, and consequently operate in the same manner; and, particularly, that Mind does not move Body, as Dr Clarke and I suppose *, internally, and by acting upon every particle of it, but by external impulse, as Body moves Body.

Before I quit this article, I think, it will be proper to observe that, if the Newtonians with whom I converse are right in this notion of theirs, that the circular Motion is impossible to be simple, they have the honour of the invention; for not only no antient philosopher or geometer ever thought of any such thing, but not even Sir Isaac Newton. For it is evident that, when he wrote his *Principia*, he had no idea of the celestial bodies being moved immediately and directly by Mind, (concerning which the only question is at present), but by Bodily Impulse, that being the only way perceived by the Senses, in which Motion is produced †. It was therefore necessary that Sir Isaac, when he wrote his *Principia*, should maintain that the Planetary Motion was combined, as Body can act upon Body in a straight line only, and therefore it was necessary that two Bodies should act upon the planets in different directions, in order

* See the passage quoted from Dr Clarke, quoted Vol. i. p. 512.

† Vol. i. p. 524. 525. 526.; Vol. ii. p. 323. 324.

der to produce the Elliptical Motion. But, If Sir Isaac, at the time he wrote the *Queries* to his *Optics*, after he had discovered that, in order to account for the phaenomena of Nature, there must necessarily be supposed an active principle in Bodies *, had been asked whether or not one Active Principle, or, in other words, one Mind, could have produced the circular or elliptical Motion in the most simple and direct manner, I do not believe that he would have hesitated a moment for an answer; nor do I think that any of his followers would have thought of it, if it had not been to support their hypothesis of the actual composition of the Planetary Motion. I think, however, they are so far in the right, that, without this notion of the Elliptical Motion being by its nature compounded, or without renouncing the system of Theism, they must give up their favourite gravitation, as well as projection, as will appear from what I have to say on the other two propositions.

The second proposition is, That, unless the Planetary Motion be composed as they suppose, the phenomena will not answer, nor the laws of the Motion be the same. If this be true, a good reason can be given why the Motion is not performed in the most simple and direct manner. But, to prove this, I think, is a more desperate undertaking than to prove even the other; for, to me it is inconceivable that the very same Motion, though produced by different causes, should not have the same properties. The Motion of a Body in a straight line, whether produced by the impulse of one Body, or of two Bodies, as in the case of the composition of the Motion, or by Mind without any bodily impulse at all, is the same Motion, and has all the same properties; so that, whatever is demonstrated to be true of it, upon the hypothesis of its being produced in any one of the ways I have mentioned, is true of it in whatever way it is produced.

* See Vol. ii. p. 358.

I therefore hold it to be certain, that, upon my hypothesis, of the planets being moved in their orbits in the most simple and direct manner, the Motion will have all the properties that we know it has: The revolution will be in the same time; the fall from the tangent, and the velocity in its orbit, will be the same; and the spaces described by the planet, in its Motion, will be as the times.

What, therefore, the Newtonians have only left for the establishment of their system, is to prove the third proposition, That all the Bodies in our system have a tendency to one another, or *attraction*, as it is commonly called; and, particularly, that the planets are carried by a centripetal force towards the sun, which makes it of absolute necessity that their Motion should be compounded, and that this centripetal force should be counterbalanced by another moving Power carrying them on in a straight line. This reasoning I have examined in the Second Volume *, and have shown that it is founded upon a very imperfect analogy. They say that, because Bodies move towards one another on this earth, therefore all Bodies, through the regions of infinite space, have a Motion towards one another at the greatest distances. The conclusion would be far from being demonstrable, supposing it were true that all Bodies on this earth move towards one another, and at all distances, as far as we know: For, though it were so upon our earth, we could not from thence conclude, with any degree of certainty, that it was so over all the universe, compared with which our earth is but a speck; it would only be an argument from analogy, and an analogy carried much too far, and unsupported by any argument to prove, that because it is so on our earth, it must be so every where. But, how miserably does the argument fail, when it is considered, first, That all Bodies are not moved towards one another upon this earth, but some of them the contrary

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way,

* Page 400.

way, that is, from one another, which is well known by the name of *repulsion*, and is a very common phenomenon as well as *attraction*; and, 2dly, That the Bodies, which are moved towards one another, only do it at certain distances, and these very small. The proposition, therefore, that all Bodies in the universe have a tendency towards one another at all distances, is a proposition, not only not founded upon any analogy here on earth, but directly contradicted by it; so that, I think, it is surprising that it should be maintained, even by *the matter of fact*, or *experimental philosophers*, as they call themselves; for that it can be maintained by real philosophers, I think, is impossible.

And here, I think, the argument from final causes deserves to be considered; for, though that argument would bear no weight if the fact was proved, yet, where the fact is doubtful, as in this case, not to say highly improbable, I think it merits some attention. Now, very good reasons may be given, why Bodies in this our earth, or in our atmosphere, which I consider as part of it, should have a tendency to one another, while others have contrary tendencies. But what reason can be given, why, in the regions of infinite space, at the distance of millions of miles from our earth and from one another, Bodies should either attract or repel one another? That they do not repel one another is admitted; but, for what purpose should they attract one another? for none other that I can conceive, except to produce this same compounded Motion, which is the very thing in dispute, whether it exist or not.

But the Newtonians will say, there is no need of any proof from final causes, or from facts here on earth, or of any reasoning from analogy; for there is a direct proof from the Motion of the Celestial Bodies, by which, they say, it is evident that they all have a tendency towards their several centres. And what is this proof? It

is

is no other than the fall of the Planet from the Tangent, in the course of its orbit. If this could not be otherwise explained, than by supposing that the Planet gravitated towards its centre, it would indeed be proof positive. But it is evident that it is the necessary consequence of the Elliptical Motion, which cannot be conceived without it: And, to suppose another reason for it, viz. a Centripetal Force, is to suppose two causes for the same effect, one of them an extrinsic cause, while the other, intrinsic and necessary, is altogether sufficient for producing the effect.

But, it will be said, that the Motion of the descent of the Planet from the Tangent is governed by the same laws as the descent of heavy Bodies here on earth. But, does it from thence follow that it must be produced by gravitation? May not two Motions, having very different causes, be so adjusted to one another, as to be governed by the same laws? If the universe be a system, must there not be a sympathy, more or less, betwixt all the Motions in it? This sympathy must needs be produced by some cause; and that cause is no other than Supreme Intelligence. But certainly the immediate causes of these sympathetic Motions may be very different from one another. Of this I have given an example *, in a battalion of men exercising, where all the Motions are sympathetic, and yet each of them is produced by a different cause, though there be one general cause for their sympathy or agreement.

Thus, I think, I have proved, that, upon the hypothesis of the universe being the production of Supreme Intelligence, it is impossible that the Motion of the Planets round the Sun can be compounded. But I say farther, that, if we should give up the System of Theism, and suppose, with Strato, and some modern French philosophers, that Matter has, by its nature and essence, not only a principle of Motion, or *vis insita*, as the Newtonians call it, by

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which

* Vol. ii. p. 401.

which it both begins and continues Motion, it is, even upon that hypothesis, impossible that the Motion of the Planets should be compounded; for, how can we conceive that a Planet, or any other Body, not acted upon by any external force, should move itself two different ways at the same time, and should not perform the circular or elliptical Motion, in the most simple and direct manner?—And so much with respect to the Motion of the Planet round its centre.

The Newtonians, unwilling to part with their favourite *projection*, *gravitation*, and *centrifugal force*, alledge that these must at least take place in the diurnal Motion of the earth round its axis; for from that Motion it is evident that there results a centrifugal force, by which the Bodies upon the surface of the earth have a tendency to fly off in the tangent, if they were not restrained by the power of gravitation.—But to this I answer, *1mo*, That no argument drawn from the Motion of the earth, or any other planet, upon its axis, can apply to the case of a Motion so different as that of the planet round the sun. *2do*, The centrifugal force, which makes Bodies upon the surface of the earth have a tendency to fly off; is the very same which makes the stone in a sling have that tendency; and the two cases are exactly the same: For in both it is the action of Body upon Body, not the immediate action of Mind upon Body; the stone, in the case of the sling, being moved immediately by the string and the hand, and only mediately by Mind. In the same manner, the Bodies upon the surface of the earth are not immediately moved by Mind, but by the Earth itself: For the Motion by Mind is upon that part of the earth that is nearest to the centre, as the Motion by Mind, in the case of a sling, is upon the extremity of the sling which is held in the hand of the slinger; and the parts of the earth cohering together, as the string of the sling does, the Bodies on the surface of the earth are moved in the same way as the stone is, that is, by the intervention
of

of another Body, and therefore have the same centrifugal force, derived from that law of Nature, by which a Body impelled, and set in Motion, has a tendency to go on, and consequently, if restrained from going on, and made to move in a circle, must have a centrifugal force *.

Thus, I think, I have shown, that the Newtonians cannot prove any of the three propositions above mentioned, viz. *1mo*, That it is impossible, by the nature of things, that the Circular or Elliptical Motion should be simple and uncompounded; *2do*, That, if it were possible, the phaenomena would not answer, because the Planetary Motion, in that case, would not have the properties that we know it has: And, *lastly*, That the Planets do actually gravitate towards the Sun.—Therefore, I think, I have a right to conclude, that the Planetary Motion is simple and uncompounded, consequently no *vis centripeta* or *centrifuga*, nor any *gravitation*, except where, from fact and observation, we are sure it is, that is, upon this earth; therefore there is no occasion for Sir Isaac's First Law of Motion, if it were true, nor for the hypothesis of a *vis insita* in Bodies, by which, of themselves, and by a Power essential to their nature, they continue in Motion without the agency of Mind: And, if their system of the Planetary Motion be laid aside, I think, mine must necessarily take place, which at least has the merit of being perfectly simple: For I say That Body, by its nature, is altogether inert, and that it has no *vis* at all in it, not even a *vis inertiae*; a very improper expression of the Newtonians, as I have elsewhere observed:

* Sir Isaac accounts for the centrifugal force of the extremities of a wheel, by the cohesion of the parts of the wheel, as I do for the centrifugal force of Bodies upon the surface of the earth, by the cohesion of the parts of the earth; (See the passage quoted, Vol. i. p. 532.): And the case of a wheel, I think, applies very well to the case of the diurnal Motion of the earth, as the Motion in both cases originates from the centre, and the extremities of both are moved by their connection with the centre.

observed: That, therefore, it cannot move itself, nor continue Motion any more than begin it;—That neither can it stop or alter its own Motion; for that would be *acting*, of which it is utterly incapable: But that the Motion must cease, or be altered, in one or other of the two ways I have mentioned, either by external obstruction, or by the moving power ceasing to act, or changing its action;—That Body, as it is perfectly inert in itself, so it is passive to every action of Mind upon it: And thus the whole system of the universe is carried on by Mind that *acts*, and Body that *suffers* *;—And, *lastly*, that Mind can move Body in all ways possible, and this in the most simple and direct way; and that, accordingly, the Planetary Motion is so carried on. This, I think, is proved in two ways: First, from fact and experience; for we see that animals move in a circle or ellipsis, as well as in a straight line, but not so perfectly as a sphere, their Bodies being moved by joints and limbs, and consequently by parts; whereas a sphere is moved altogether, or not at all: And, *2do*, *a priori*, from the nature of Motion by Mind, which, as it moves by incessant energies, can change the direction of the Motion in every instant; and therefore can move in a curve, just as naturally as in a straight line.

Let us next consider what it is that induces the Newtonians to reject a system so simple, and, in place of it, to contrive one so complex and involved as theirs is; and, for that purpose, to advance such paradoxes as those I have mentioned. It can be for no other reason, but that it is necessary for supporting Sir Isaac's system of astronomy, and demonstrating the laws of the Motions of the Celestial Bodies. I should think it, indeed, unfortunate, if so noble a system of science could not stand upon any other foundation; though, if
that

* This is the doctrine of the Pythagorean School, and of the most antient book of philosophy extant, Ocellus Lucanus, *περί του παντος*.—See Vol. i. p. 31. 28. 46.

that were really the case, I should be very clear for giving up all Sir Isaac's fine demonstrations, rather than support them upon principles which, I think, shake the very foundation of Theism. If we should do so, it would be no more than leaving astronomy as it was before Sir Isaac wrote, that is, a mere collection of facts and observations, without system or science*. But, I think, I have shown that all Sir Isaac's demonstrations will stand firm upon a solid bottom, if we only make a most obvious and easy analysis of the Planetary Motion, by considering separately the descent of the planet from the tangent, and its progressive Motion in its orbit. It is true, that this descent cannot exist without the progressive Motion. But neither can the dimensions of Body exist without Body, nor surfaces without solids; yet Euclid has considered them separately; and upon that abstraction all his demonstrations are founded, though it be an abstraction merely ideal, which can only be made by the Intellect, but cannot be perceived by the Sense, nor figured even by the Imagination. Nor in geometry only are such abstractions common, but in all other sciences. Thus, in logic, we consider the Attribute separately from the Subject; though, neither in fact, nor even in imagination, can the Attribute exist without the Subject. In metaphysics, we consider Motion by itself, abstracted from any body moved, and yet such abstraction is by nature impossible to exist: And, in like manner, we consider Matter as distinct from Body, that is, without extension, or any other of the qualities we ascribe to Body; and yet such matter no where exists, as far as we know. In morals, we consider Appetites, Inclinations, Opinions, and Will, without taking into our consideration the subject of these, though, without such subject, it is impossible they can exist. And, in general, I will venture to affirm, that no science can be taught or learned, without abstracting, and considering separately, things that cannot exist but in conjunction*.

But,

* Vol. ii. p. 410. 421.

† See more of this, Vol. ii. p. 422

But, say the Newtonians, you proceed upon hypothesis, particularly upon the hypothesis of the Planetary Motion being compounded, which you acknowledge is a false hypothesis, for you say the Motion is simple. Now, we think Sir Isaac's demonstrations would stand much firmer upon real facts; and therefore we say that projection and gravitation do really exist.

But to this, I think, I have given a sufficient answer, when I have said *, that, if the hypothesis I make were absurd or impossible, the objection would no doubt be well founded. But this the Newtonians will not say, who affirm that in fact it exists; and I have shewn that there are compounded Motions of the same kind on earth †. All, therefore, they can say is, that I suppose the Planetary Motion produced by a cause which does not produce it, though it might produce it. But we ought to distinguish betwixt the Motion and the Cause of the Motion; for the Motion may be the same though the Cause of that Motion may be different. Thus, a Body may be moved in a straight line, either by Mind, by the direct impulse of one Body, or by the lateral impulse of two Bodies; and yet the Motion is the same, in which ever of the ways it is produced; and, therefore, if I can demonstrate, by the proposition concerning the composition of Motion, that, upon the supposition of the Body being moved in the last of the three ways I mentioned, its moving force will be such or such, the same will be true in which ever of the other ways the Body is moved ‡.

This hypothesis of the Motion in a straight line being produced by two powers, when in fact it may be produced only by one, is much used by Sir Isaac in his Principia; and it is truly the very
same

* Vol. ii. p. 391.

† Vol. ii. p. 426.

‡ Vol. ii. p. 425. 426. 427.

same hypothesis that I make with respect to the Planetary Motion ; for I suppose that Motion to be produced by two powers, when, in fact, it is produced only by one. But there is another hypothesis made by Sir Isaac, that is not so well known, but which he has made the foundation of his whole system. It is the hypothesis of Motion in a straight line, which he lays down as an axiom in his First Law of Motion ; and yet it is mere hypothesis ; for it is certain that, by means of the constant rotation of the earth upon its axis, there is no such thing on earth, nor, for any thing we know, any where else, as Motion in a straight line : For even Bodies do not fall in a right line ; so that it is not true, what is commonly said, that gravitation acts in a straight line ; yet, as there is nothing impossible, by the nature of things, in the hypothesis, Sir Isaac, I think, was at liberty to make it ; nor do I, on that account, find fault with his First Law of Motion.

But there is still another hypothesis made by Sir Isaac, much more extraordinary, because it is impossible. Yet, upon this hypothesis, he has demonstrated that capital proposition in his Principia, That the spaces, which a planet describes in its revolution round the sun, are as the times ; a proposition, upon which he founds his demonstrations of the laws of the Planetary Motion. The hypothesis I mean is, That a circle is not truly a figure comprehended under one line, as Euclid has defined it, but a polygon of an infinite number of sides. Now, this is as impossible, as that one line should be many lines. For though, by multiplying more and more the sides of a polygon, you may bring it still nearer and nearer to a circle or ellipsis, it is impossible, by the nature of things, that a rectilineal figure, of how many sides soever, should ever be a circle ; and yet no Newtonian will dispute the truth of the proposition Sir Isaac has demonstrated upon this hypothesis*.

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* Vol. ii. p. 425. See what I have further said upon this subject, Vol. i. p. 525.

As I do not profess to be a great astronomer or geometer, it is possible that I may have erred in the analysis I have given of the Planetary Motion; and therefore I would most earnestly beg that those, who are more learned in geometry and astronomy, would correct any errors that I have fallen into, for which they shall have my public thanks: And I should be glad also to be informed by them, whether or not I be right in supposing, that demonstration may not only be founded upon such abstractions and separations of things, which necessarily exist together, as I have made in the case of the Planetary Motion, but that there can be no science without such abstractions; and, further, whether I be not wrong in saying, that demonstration may likewise be founded upon an hypothesis, provided the hypothesis be not absurd or impossible, as well as upon realities; and that Sir Isaac himself has demonstrated in that manner. If I be right in these particulars, the Newtonians, I think, must confess that they are much obliged to me for having disincumbered their system of such paradoxes, as That one Mind cannot move a Body in a circle or ellipsis, but that there must be two Minds acting upon it in different directions, and counteracting one another *.—That Mind, though so perfectly different in its nature from Body, can move Body only in the same way that Body moves Body, that is by external impulse, and therefore cannot vary the direction of it in every instant of the Motion.—That the same Motion, if produced by different causes, would not have the same properties, or be governed by the same laws.—That there is but one way of motion ceasing, that is by external obstruction, and not by the ceasing of the moving power to act.—That there is only one way that Body can move Body in the celestial spaces, that is by pulsion, but not by pressure or trusion.—And, last of all, that there is an innate and essential power in Body, by which it can not only continue a Motion which

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* See what I have said upon this subject, Vol. ii. p. 392. 393.

has been once impressed upon it, but begin a new Motion of a quite different kind; and this not once, but at different times, and in different directions; a proposition which I hold to be most dangerous to the doctrine of Theism, and, indeed, leading directly to Materialism. For it appears to me to be reviving the philosophy of Epicurus, who maintained that there is a principle of Motion in Matter different from Mind; and, therefore, that all the Motions in the universe are produced by material necessity. And further, it is giving, as I before observed *, a principle of intelligence, as well as of Motion, to Matter; for there can be nothing done uniformly, or by certain rule and measure, without Intelligence.

If they will not give up the system, which leads, by necessary consequence, to such extraordinary propositions, they should at least endeavour to defend it by more plausible arguments than any I have yet heard, and, in that way, to prove themselves, if not good philosophers, at least good scholars, and learned in the antient arts of sophistry, so as to be able to argue against Motion by Mind as subtly, as Zeno of old did against Motion in general. If they will do neither, they must forgive me for thinking that they are mere mechanics, and, that whatever value they may put upon the science of mechanics, even a scientific mechanic is not more different from a common mechanic, than a theoretic geometer is from a land measurer.

There is another thing I would beg leave to recommend to them, and that is, to deal more in distinctions, and not to forget that old maxim of the Schools, *qui bene distinguit, bene docet*; which is necessary in all branches of philosophy, and especially in metaphysics. This is a thing, in which I observe all those, who have not studied the antient philosophy, are defective; and particularly the Newtonians, in this inquiry concerning the beginning and continuation of Motion,

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which

* Page 295.

which is undoubtedly of the metaphysical kind, have not made the distinction betwixt Motion by Mind and Motion by Body, nor betwixt the manner in which Mind moves Body, and that in which Body moves Body ; and I am afraid they have not rightly made the capital distinction, betwixt Mind and Body, which is the foundation of all good philosophy.—Even as to Motion by Body, which Sir Isaac appears only to have considered, they have not distinguished, as I have observed, betwixt Motion by Pulsion, and Motion by Trusion, nor betwixt the two ways in which Motion may cease, viz. by external obstruction, or by the ceasing of the moving power to act. And there is another most material distinction in the system of nature, betwixt the sympathetic Motion of Bodies, and the Motion of the one being the cause of the Motion of the other. This so material distinction they have neglected to make in the case of the tides, and therefore have supposed, I think, most absurdly, that the Motions of the moon are the cause of the Motions of the sea ; not knowing that, as the universe is a system, and the most perfect of all systems, being the production of infinite wisdom and power, all the Motions in it must have a sympathy, more or less, with one another ; and, therefore, that the saying of antient wisdom, which I have elsewhere quoted, ‘ That all things in the universe sympathise ‘ with one another,’ shews a most profound knowledge of the system of Nature.

If I might presume further to advise these gentlemen, I would recommend to them, if they will continue still to speculate upon a subject so different from geometry and mechanics, as the origin and continuation of Motion, to study a little the philosophy of Mind, and to follow the example of their master Sir Isaac, who at first appears to have had no other idea of the origin of Motion, but that which falls under the senses, I mean bodily impulse : Some years after this, it appears from his correspondence with Dr Bentley, that he began

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to doubt whether or not the Motions we observe in Nature, and particularly gravitation; might not be produced by an iminaterial cause *: And, last of all, when he wrote his Queries to his Optics, he lays it down, that the *vis inertiae* will not account for the continuation any more than the beginning of Motion †; and that therefore there must be an active principle in body, such as Aristotle supposed, and which is no other than what I call *Mind*, and which Aristotle calls *a kind of life in Body* ‡. Thus, it is evident that Sir Isaac gave up, at last, his First Law of Motion, founded entirely upon the *vis inertiae* of bodies, by which he supposed they continued in Motion after it was once begun. In like manner, I cannot doubt but that the present Newtonians, if they will philosophise upon the nature of Motion, and the difference betwixt Motion produced by Body and that produced by Mind, as Sir Isaac appears to have done when he wrote his Queries, will give up this *vis inertiae* and *vis insita*, which they appear to be so fond of, and then they will get free of all those difficulties and absurdities with which they have perplexed their system; and, particularly, they will be able to demonstrate all the laws of the Planetary Motion, without the strange supposition of one and the same Motion being produced by two powers, and they will have nothing more to do but to analyse that Motion in the same way in which they analyse the most simple of all Motions, I mean that in a straight line. In this way they will simplify the system exceedingly, by giving up gravitation as well as projection; nor, indeed, do I think they should grudge to do this, after being obliged, as I have shown they are §, to give up projection, which has always been understood to be necessarily connected with gravitation.

After

* Vol. ii. p. 376.

† See his words quoted, Vol. i. p. 547.

‡ Vol. ii. p. 358. where I have given Sir Isaac's own words, concerning this active principle in Body; See also p. 376. *ibid.* where I have shown the progress of Sir Isaac's thoughts upon this subject.

§ Pages 292. 293. 298.

After all I have said, I am persuaded that the prejudices in favour of the Newtonian astronomy, as it is taught at present, are so strong, that I shall convince only a few, who are not only geometers and astronomers, but also scholars and philosophers; and there is one prejudice, which, I am afraid, I have in vain endeavoured to remove, and that is the supposition of this being a discovery of mine, and that I am vain enough to pretend to be wiser than all those, who, for so many years, have studied and admired the Newtonian philosophy. This prejudice I have endeavoured to remove, by what I have said in Volume Second *, where I have given most respectable authorities in support of my opinion, and particularly that of Dr Clarke, who has said in express words, which I have quoted †, That all the great Motions of the universe, (by which he undoubtedly means the Celestial Motions), are carried on, not by virtue of any force originally impressed upon them, but by some immaterial power, perpetually and actually exerting itself every moment, that is, as I express it, by the constant energy of Mind: Which, if true, decides at once the controversy betwixt me and the Newtonians; for, if this be admitted, there is an end of *vis insita*, *projection*, *gravitation*, and *centrifugal force*, and all the machinery of the heavens. Now, Dr Clarke was certainly one of the greatest metaphysicians that ever was in England. And, let me tell those gentlemen, that they may work as long as they please with lines and figures, and compute and measure all their lives; but, if they are not learned in the first philosophy, they never can be proper judges of a question concerning the origin and continuation of Motion, and the difference betwixt Motion produced by bodily impulse, and Motion produced by Mind.

To

* Vol. ii. p. 355. and following.

† *Ibid.* Page 356.

To these authorities, I would have the students of chymistry, a study very much in fashion at present both in England and France, add the authority of their masters in that art, Van Helmont and Paracelsus, the first experimental philosophers in Europe, who have maintained the very same doctrine that I maintain concerning the origin and continuation of Motion *.

By any thing I have said here, on the subject of the Newtonian astronomy, I would not have it understood that I mean to disparage the science of mathematics. I have said elsewhere, and I repeat it here, that I hold the mathematical science to be not only very useful in the arts of life, but also in philosophy, if it be used as the *handmaid*, not as the *mistress*. But, undoubtedly, very improper uses have been made of it, such as those ridiculed by Swift, in his voyage to Laputa ; and it has really been applied to some other, not much less ridiculous. About the beginning of this century, physic had become mathematical, and the laws of mechanism were applied to the animal oeconomy, and diseases in that way accounted for. A more extraordinary application still of mathematics was made by Mr Hutchison of Glasgow to the moral science, and the degrees of virtue and vice we were taught to calculate by algebra. In order, therefore, to make a right use of his art, every mathematician should know what the subject of it is, which is no other than Quantity. If he is so ignorant of the elements of philosophy, as not to know what quantity is, I must refer him to what I have said in the First and Second Volumes on that subject, where he will find it defined, and divided into *quantity discrete* and *quantity continuous*†. The first is the subject of *arithmetic*, the second of *geometry*, which examines

* See what I have said upon this subject, Vol. i. p. 239.

† Ibid. p. 439. ; Vol. ii. p. 22.

mines the dimensions or boundaries of bodies by lines or figures. Besides these, there is a quantity of moving force in Bodies that are moved, which the mathematician computes; and this part of the science is what is called *mechanics*.

From this account of the subjects of mathematics, it is evident that an inquiry into the cause of the beginning or the continuation of Motion does not belong to that science, but to another science quite different, though, as I have observed, it is by the science of mechanics that the Motions of Body are measured and computed. At the same time, I will let the geometer know, what perhaps he does not know concerning his own art, if he has not learned the antient philosophy——That it is in one sense the doctrine of causes. To understand this, he must know Aristotle's division of causes into the *material*, the *efficient*, the *formal*, and the *final*. Now, geometry, when it defines the several figures, and demonstrates their properties, shows the *formal* cause of them; for it shows that which makes them what they are, or, in other words, their nature and essence. The same is true of the scientific arithmetician, who defines numbers, divides them into several classes, and demonstrates their different qualities and properties. And Sir Isaac Newton, when he has demonstrated the laws of the celestial Motions, may be said to have assigned the cause of them in this sense of the word. Thus far, and no farther, does mathematics go in the investigation of causes; for, as to the material cause, or *matter*, of which any of its figures are composed, or with respect to the efficient cause, by which any of the subjects it examines are produced, set in motion, or continued in motion, or with respect to the final cause, that is the end for which they were produced, and are moved, concerning these it inquires not, but leaves them entirely to the philosopher.

And

And here I conclude what I have to observe concerning the Newtonian astronomy. The reader will not wonder that I have been at so much pains, in this and the two preceding Volumes, to establish upon right principles this astronomy, which I consider as a system of science doing more honour, not to the English nation only, but to modern times, than all our much boasted discoveries put together ; and I do not know but that it is the greatest discovery in science that ever was made by a single man. The true system of the heavens was known to the Pythagoreans, and was no doubt one of the many valuable sciences which Pythagoras learned from the Egyptian Priests, and brought with him into Greece and Italy ; and there is good reason to believe that these same priests knew the laws by which that system is governed. But this, with a great deal more of valuable knowledge, was lost in that shipwreck of learning and philosophy which happened in Italy, by the destruction of the Pythagorean colleges there, and of which some planks only were picked up, and saved by the philosophers of Greece*. Another great discovery in science was the logic of Aristotle, without which we should not have known what science itself is. But this likewise, I believe, came from the Pythagoreans, and originally from the Egyptian priests ; thus much, at least, is certain, that the book upon the Categories, the foundation of the whole system, was the work of a Pythagorean philosopher, which Aristotle has done little more than translate from the Doric to the Attic †. But those discoveries were the work of ages, and of a succession of men for thousands of years, in the colleges of priests in Egypt ; whereas

VOL. III.

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Sir

* See Introduction to Vol. i. p. vii. ; Origin and Progress of Language, Vol. ii. p. 262. ; Vol. iii. Book iv. Chap. 24. where the reader will find a short history of the fate of learning in the different ages of the world, which he may think it worth his while to read.

† Origin and Progress of Language, Vol. i. second edition, page 72. and following.

Sir Isaac Newton's discovery of the laws of the Planetary Motion was that of a single man in the space of a short life.

But, whatever regard I may have for the honour of Sir Isaac Newton, my chief concern is for the system of theism and natural religion, which I hold to be absolutely irreconcilable with the principles of this astronomy, as they have hitherto been laid down; for, if it be true that Body can move itself in any direction, and with an uniform velocity, (whether in a straight line or in a curve, is, I think, of little consequence), it will be impossible ever to convince an atheist that Body may not, of itself, do the whole business of nature, which we know is all carried on by Motion. The distinction between the beginning and continuation of Motion, has, as I have shown *, no foundation in Nature and the reason of things; nor is supported by any fact or experiment, as is evident from what we observe of magnetical, electrical, and chymical Motions; nor can it ever satisfy those philosophers who maintain, as all the antient philosophers did, atheists as well as theists, that the Material world was from all eternity: And, as nothing can be done according to rule and measure, except by Intelligence, if the Motion be uniform, Intelligence, as well as a principle of Motion, must be of the essence of Body; and, indeed, as all the Motions of the universe are according to some rule or measure, it seems impossible to separate these two. If, therefore, they are not disposed (as I hope they are not) to adopt the philosophy of Strato, who gave to Body both intelligence and a principle of Motion, (two things that never can be separated, where the Motion is according to rule or measure †,) which, as I have observed ‡, would simplify their system
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* See page 294.

† See page 295.

‡ Vol. ii. p. 452.

very much, and free it from those absurdities and perplexities with which I have charged it, I think it is a duty they owe to their master Sir Isaac, and to the public, either fairly and candidly to give up their *vis insita*, and their first law of Motion, upon which, as I have said, their whole system hangs, or to show that it has not the consequences with respect to theism and natural religion, which I impute to it.

C H A P. II.

Inquiry whether the Motion of unorganized Bodies is by the Supreme Mind, or by inferior Minds.—The Doctrine of Antient Philosophy, that the Deity does not immediately move Bodies.—Contrary Opinion, that the Deity is present in every particle of Matter.—The Opinion of the Antients more agreeable to the general Analogy of Nature.—If the Deity acts at all by inferior Minds, it must be in the Movement of Bodies.—To maintain the contrary is making God the Anima Mundi, according to the Doctrine of Spinoza.—It also makes him moveable and discriptible.—Besides these Arguments ex absurdo, a direct Proof from the Nature of Deity.—This to be known only by the Study of our own Minds.—The Nature of the Human Intelligence.—That Intelligence does not move Body immediately and directly.—The Analogy of Nature wonderfully preserved in this Way.—Man truly a Microcosm.—Objection from the Omnipresence of God.—Answer, 1mo, God must be Omnipresent as he is Omnipotent, that is according to his Nature.—2do, It is admitted that he does not move Animal Bodies, and therefore is not present in them.—Difference betwixt the Human Intelligence and the Divine, with respect to their being present with other Minds.—The Doctrine of Plato and of the Christian Theology upon this Subject.—In what Sense the human Mind is present with Objects distant in Time and Place.—The Mind goes to the Objects, but the Objects do not come to it.—The Materialist cannot conceive this, but the Theist may, from the resemblance of the human Mind to the Divine.—Objection, That the Mind is present in Places, and conversant with Objects that have

have no existence.—Answer, That this creative Faculty is a Portion of the Divinity in us.—Difference betwixt the Worlds of our Creation and the Worlds of God.

THE next thing, I am to treat of in this Appendix, concerns Motion likewise, the grand agent in all natural operations, without the perfect knowledge of which it is impossible to understand the philosophy of Nature. I proceed, in this Chapter, upon the supposition that all Motion is produced mediately or immediately by Mind; and I am now to inquire whether it be the Supreme Mind that immediately moves unorganized Bodies, or whether they be not moved by inferior Minds, incorporated with them, and in that way moving them.

In the preceding part of this work I have maintained the doctrine of antient philosophy,——That, though the Deity be the author of all the Motions in the universe, having produced the Minds which carry them on, yet he does not immediately move any Body:—That, therefore, there is a principle of Motion, according to Aristotle, in all physical bodies, and which is what he calls *Nature*:—That, by such a principle, all the Bodies in the universe are moved:—That, with them, this principle, which he says is a species of Mind, and which I call the *Elemental Mind*, is also moved; but that the great author of the universe, though the author of all the Motions in it, is himself immoveable, and altogether separated from matter.

On the other hand, it is maintained by some, for whose opinion I have the highest respect, that the Deity is the immediate author of all the Motions of unorganized Bodies in this universe; and that he could not be said to be omnipresent, unless he is present in every particle of matter in such bodies.

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In the *first* place, I think, it must be admitted, that my opinion is more agreeable to the general analogy of nature ; for, if it be admitted, as these gentlemen do admit, that our Bodies, and the Bodies of other animals, are moved by Minds of their own—also that the Vegetable is moved in the same manner, there would be something incongruous and inconsequent in Nature, if other Bodies were not also moved by Minds of their own, but which I acknowledge to be a very inferior Mind even to that of the vegetable, and as different from it as the vegetable life is from the animal.

2^{do}, If it be admitted, as I think it must, that the Deity does not do every thing immediately by himself, but employs inferior agents and ministers under him, in what is it more likely that he should employ such agents, than in that lowest office of Mind, the simple movement of Bodies ?

But, 3^{tio}, I think I have shown that Mind cannot move Body as Body moves Body, that is, by Pulsion or Trusion, or in any other way by contact, or application of surface to surface, but by acting upon every particle of it, that is, by animating it *. Now, to suppose the Supreme God to be embodied, and to be nothing else but an *Anima Mundi*, is, as I think I have shown †, downright Spinozism, and as repugnant to the doctrine of genuine theism, as it is to the philosophy of the antients ; and it is going but one step farther to maintain, as Dr Priestley does, that God is the only Mind in the universe, and that we ourselves have no souls, nor Minds of any other kind, but are mere machines.

And, *lastly* If it be true, as I think it certainly is, what Aristotle has said, that our Minds are in some sense moved with our Bodies ‡, it follows, as the necessary consequence of this opinion, that the Deity must be moved along with the Bodies which he moves ; so that

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* Vol. ii. p. 47.

† Page 8. of this Volume.

‡ Vol. i. p. 21. 72.

here we have a moveable Deity, and a Deity discerpted into millions of pieces, as many as there are Bodies which he animates and moves.

These arguments *ex absurdo*, appear to me very convincing ; but I will add what I think a direct demonstration *a priori*, being from the nature of the Deity, so far as we can comprehend it.

That the Deity is Intelligence, every theist must admit, and pure Intelligence, without the least mixture of animal, vegetable, or elemental life. What the nature of this Divine Intelligence is, we cannot know, otherwise than by studying what our own is ; for, as I have taken occasion several times to observe, we can know nothing of the Divine Nature but from the study of our own. Now, of our own Intelligence we know nothing, nor, indeed, of any thing else, except by its operations. The operations of our Intelligence are, forming ideas, comparing these ideas together, that is, reasoning, and perceiving what is true, what is beautiful, and what is good. In this way our Intelligence operates as to speculation ; and, with respect to practice, it directs the operations of the animal life, or the motions of the body. But, does it move the body directly or immediately itself ? And I say it most certainly does not, but that the Body is immediately moved by that inferior life we call the Animal Life, but under the controul and direction, as I have said, of intelligence, as often as we act as intelligent creatures, and not as mere animals.

This, then, being the nature of the human intellect, shall we suppose the Divine Intellect to be of a nature so entirely different as to move Body ? If it did so, it would not be pure Intelligence, but would have a mixture of the animal, or even of the elemental life, an essential quality of which is the moving of Body ; and, for the
same

same. For, we must ascribe to it the properties of the vegetable life, and even of the lowest of all that which moves inanimate bodies, and which I call the Elemental Life.

This, I think, is a proof most evident and direct, from the nature of Deity, That he is a being of such a kind, as that he cannot move Body directly and immediately : Nor ought we to be shocked at the expression, ‘ That there is any thing which the Deity cannot do ;’ for it is commonly said, and with the greatest truth, that the Deity cannot act unjustly and maliciously, or that he cannot make both sides of a contradiction true ; and the reason is, that God cannot alter his own nature, nor the nature of things, which is part of his nature, and therefore is as unchangeable as his nature.

And here we may observe how wonderfully the analogy of nature is preserved, upon the supposition of the Divine Intellect being such as I think I have proved it to be, and how true that antient notion is, of *man* being a *microcosm*, or *little world*, in which his intelligence governs and directs, as the Divine Intelligence does in the great world ; but only governs and directs, without operating directly and immediately upon matter, or mixing in any way with so vile a substance. In this way considered, the system of nature is all of a piece, and Man, who is the image of God here below, resembles him as much as it is possible a being so inferior can do.

The great objection that I have heard made to this system of mine is, that, if it be true, God is not present every where, nor that universal Being, which by all theists he is supposed to be ; for, as Mind, when it moves Body, is present with every particle of the body, and acting upon it, if the Deity does not move bodies, he is not present in these bodies, nor acting upon them, and consequently his energies and operations, nay even his existence is not universal.

But

But to this I answer, that I am as far as any theft from denying the omnipresence of God ; but his omnipresence, as well as his omnipotence, must be such as is consistent with his Nature. I do not deny the omnipotence of God, when I say that he cannot make an axiom to be false, or two sides of a contradiction to be both true : And no more do I deny his omnipresence, when I say he is not so united with Body as to move it ; because both the one and the other are inconsistent with his nature : And it might as well be contended that God is not every where present, because he has not local situation, and does not occupy space, as Body does. In that way only Body can be present anywhere ; but Body and Mind are of natures perfectly different.

2do, Even those, who maintain that it is necessary he should be present in every particle of Matter so as to move Bodies, are not consistent with themselves when they admit that he is not so present in Animal and Vegetable Bodies, which are moved by Minds of their own. Now, if these may be so moved without any derogation to God's attribute of omnipresence, why may not the unorganized Bodies be moved in the same manner ?

In what sense, then, it will be asked, do I say that God is omnipresent ? And I say he is present every where in the only sense in which Intelligence can be said to be present any where, that is by communicating with other Minds, and controuling and directing their operations, if such be the power of the Intelligence. It is in this way that our Intelligence is present with our Animal Life ; and it in this way also that we are present with the Intelligences of other Men, and sometimes controul and direct those Intelligences as well as govern our Animal Life.

But here we may observe the great difference betwixt the Human Intelligence and the Divine. The Divine Intelligence is present with all the Minds of the universe, the lowest as well as the highest, at all times, and likewise governs and directs them : Whereas our Intelligence can be present only at one time with one Mind, either with our own Animal Mind *, or with other Intelligences ; nor have we the power of directing and governing other Minds, such as the Deity has, not even our own Animal Mind at all times.

I have insisted the more upon this point of the Deity not being the immediate Author of the Motion of Bodies, that it is a fundamental article of the theology of the antients, whose philosophy I am endeavouring to restore, particularly that of the Platonists ; for, among them, the Supreme God, so far from moving Body or being any way connected with Matter, is above all Being, even Intelligence, and is altogether incomprehensible by us, and inexpressible, except by his Attribute of Goodness, from whence they denominated him the *το αγαθον* or *the Good*, by way of eminence. From Him issued *nous* or *Intelligence* ; and from Intelligence came the *ψυχη* or *Mind* which animates all the Material World, Animals, Vegetables, and, in general, all Bodies organized and unorganized. These were the three persons of Plato's trinity, and the Principles of all things in the universe, of which Plato has spoken himself, but in a mysterious and reserved manner, being, as I suppose, one of the greatest secrets which he had learned from the Egyptian priests. But the later Platonists treat the subject much more fully, and particularly Plotinus, the most profound theologian

* It is often not present with our own Animal Mind, and then it is said by Heraclitus, I think very properly, to be abroad :

Peregre est animus——

logian of them all *. Of the conformity betwixt this Platonic Trinity and the Christian I have spoken in the First Volume of the Origin and Progress of Language †. What our modern divines think of that conformity I cannot tell ; but, from a passage of Eusebius, in his *Praeparatio Evangelica*, which I have quoted ‡, it appears to me that he understood the doctrine of St John, upon the subject of the Trinity, and of Plato, to be the same. And, if so, it is impossible to believe that, according to the Christian Theology, the Supreme God is the immediate Author of the Motion of any Body.

And here it may not be improper to add something, in further explanation of what I have elsewhere said, concerning the presence of the Human Mind in different times and places, which, though I have not made to be omnipresent, I have shown to be present, both in places very distant from the place where our Body is, and also
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* See Ennead. 5. Lib. i. Cap. 8. and Lib. ii. Cap. 1. and 2. with the Notes of Marfilus Ficinus, who has been at the pains, not only to translate, which was a most difficult task, but to illustrate with large notes and observations, an author the most obscure of any that I know, at the same time most valuable to those who desire to enter into the depths of the Platonic theology. By the account which Porphyry, his scholar and the writer of his life, gives of him, he wrote as one inspired, and would not submit to the trouble of revising or correcting what he had written. See what I have further said of him, Vol. i. p. 140. The edition of him by this Marfilus Ficinus must have been a work of prodigious labour, and which required very great abilities and knowledge of antient philosophy ; and I think he may be justly reckoned among the chief restorers of the antient philosophy in Italy, but which, I am afraid, is lost there, as well as in other parts of Europe.

† Page 7.

‡ Ibidem. There is another Christian author, Cyrillus, who, in the 8th book of his Answer to Julian the Emperor, gives the same account of the trinity of Plato, taken from a work of Porphyry the philosopher that is now lost. There Porphyry calls the second person of Plato's trinity Θεὸς δημιουργός, that is, *the God who made the world* ; which is perfectly agreeable to the Christian doctrine.

at times very distant from the time of our present existence. And it will be the more proper here to make some further observations upon this subject, as it will shew still more evidently that wonderful analogy there is betwixt our Mind and the Divine.

When we go back to past time, or are conversant with objects in distant places, it is evident to me that the Mind must be some way or other present with the objects, though far removed both in time and place : For, how is it possible otherwise to conceive that the Mind can perceive or apprehend them. And it is no answer to say that the objects are painted in our imagination, and that we perceive them as we do figures in a picture ; for that is no more than a similitude, or a metaphorical way of speaking, as when we say that a thing has made an *impression* upon our Mind, so that we remember it ; nor is it possible that such figurative expressions, borrowed from corporeal things, can be understood literally of an immaterial substance, such as the Mind. There can, therefore, be no picture, impression, or representation of any kind, of the objects, but the Mind must, as I have said, be one way or other present with the things themselves, so as to be able to apprehend or lay hold of them. Now, this can only be in one of two ways, either by the things coming to the Mind, or by the Mind going to them. The first is impossible, and therefore the last must be the truth of the matter : And the Mind must transport itself in a way we cannot explain, though we be sure of the fact, to the most distant places, and also to the most remote times, and there perceive objects, even such as have no longer any existence.

The mere materialist, or those who have only studied Body and its operations, will have no idea of the possibility of this ; but the theist, who believes in the omnipresence of God, and that he sees all things, past, present, and future, will have no difficulty to conceive that the human Mind may have so much of divinity in it, as

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to transport itself to distant times and places, not to exist there all at once, as the Deity does, and with other restrictions and limitations, such as are suited to the nature of a Being so much inferior. And, even as to future times, there is not, I think, any reason to doubt that the Mind of Man may be endowed with an extraordinary faculty of seeing into them; and, even without any miracle, I am persuaded he, in his natural state, had, like other animals, a prescience of such things as his animal oeconomy required that he should know.

The great objection that I have heard made to this doctrine of mine is, that we imagine to ourselves places which have no existence, and there converse with objects which have no existence neither, nor perhaps ever can exist, being quite out of nature and probability. This, they say, frequently happens in our dreams, and is the case of every poet and castle builder, who makes to himself a kind of new world, in which he dwells, and acts a part himself, or makes others act.

But my answer to this is, that here again we may discover that there is a portion of the Divinity within us; for it is from thence we derive this creative faculty, imitating, in some degree, that highest faculty of the Divine Nature, by which it produces worlds out of itself. And, though these worlds of our creation are not, like these of the Divine, material worlds, they are ideal, such as we must conceive to exist in the Mind of the Supreme Architect of Worlds, and such as exist in the Mind of every artist among us, before the piece of art is executed, that is, incorporated with Matter.

And thus, I think, I have sufficiently explained and illustrated what I have said in this and the preceding Volumes, concerning the principle

principle of Motion in inanimate Bodies, and the necessity of their Motion being carried on, not by the Supreme, but by inferior Minds, and have also removed any doubts that may have occurred to my readers upon the subject of the omnipresence of God, and of the presence of the human Mind in distant places and times.

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C H A P. III.

*The Distinction betwixt Man and Brute, the Foundation of the Philosophy of Man.—The importance of the Question.—The Decision of it only to be found in Books of Antient Philosophy.—There are only two Powers of every Mind, viz. the Gnostic and the Active.—Man different from Brute in both.—The Gnostic Powers of Man and Brute considered, both as to the Objects of their Knowledge, and as to their manner of knowing or apprehending.—General Division of things in this Universe into those which have a real existence, and those which have not.—This Distinction further explained.—The Difference shewn betwixt the Corporeal Forms of things, and their Inward Forms or Ideas.—The former can be apprehended by the Sense only, the latter by Intellect only.—Of the Ideas of particular things, and of General Ideas.—The Intellect apprehends only Generals, that is, things in System, or in Relation to one another.—The Intellect cannot apprehend Corporeal Things, —makes itself its own Object.—Of the different manner in which Sense and Intellect apprehend their Objects.—Of the Active Powers of Man and Brute.—The Pursuits of Intellect and Sense quite different.—The Actions of Man proceed from Opinion, but not the Actions of the Brute.—No Consideration of Ends or Means in the Actions of the Brute.—Intellect and Sense so different, that they must belong to different Substances.—This Distinction of Substances in Man, only to be found in Antient Books.—Of the wonderful things which the Brute does by Instinct.—Examples of these in
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the Case of the Elephant—but all these things done without Intellect.—The Brute has no Conception of Mind, consequently has no Ideas ;—in Practice, does not act from any Opinion of Good or Ill.—If he had Intellect, it would be more perfect than the Intellect of Man.—The Brute acts from Instinct.—Definition of Intellect.—This Definition explained.—The Brute, being directed by Supreme Wisdom, better directed than we are.—The Instinct of Brutes explained from the Motions of Plants, and even of Bodies unorganized.—The Actions of the Brute show that he is not actuated by the governing Principle of the Intellectual Life, viz. the Idea of the Fair and the Handsome.—The Case of the Brutes that are domesticated, such as the Dog and the Elephant.—These have some appearances of Virtue, such as that of Gratitude, but only the appearance.—One great difference betwixt the Man and the Brute, that the Man is dissatisfied with his Condition, envies and repines,—but the Brute never does.—This accounted for.—Porphyry, the Philosopher, of Opinion, that the Brutes have Intellect as well as we.—His Error accounted for.—Of the Orang Outangs of India—believed by all the Indians to be men—live in little Societies—propagate with Women, and the Offspring propagates.—One seen in the Island of Sumatra by a French Gentleman—melancholy and discontented with its Condition, but not malicious.—The Orang Outang not of a Species of Man different from us.—No Division of Man, or of the lowest Species of any Genus, into other Specieses.—Origin of the Error which supposes Different Specieses of Men, is the not knowing the Progress of Man.—This Characteristic of him, part of the antient Definition of him.—From Buffon's Account of the Orang Outang he saw, he must have been a Man—he wanted nothing but Speech, which he could not have at his Time of Life.—had more understanding than any Child among us.—Nothing but Vanity can hinder us from being convinced of the Orang Outang

Outang being a Man.—If the Orang Outang be not a Man, Peter the Wild Boy is not one.—A further Account of Peter from an Oxford Gentleman.—Some Reflections upon that Account.

I will conclude this Appendix with some observations upon a subject, of which I have treated in more than one place of this work, but which is of such importance in the philosophy of Man, being the very foundation of it, that I think it deserves some further illustration. The subject I mean is the distinction betwixt Man and other Animals.

That it is by the Intellectual part of our nature we are so distinguished, every body will admit. If, therefore, it be true that the Brutes have Intellect as well as we, there is an end of the distinction betwixt us and them; and we must submit to be Brutes, with the difference, perhaps, of some superiority upon our side, such as we observe among the individuals of our own species, or even among the brutes themselves. This, therefore, is a question very interesting to every man who has any sense of the dignity of his nature; and I propose, in this Chapter, to try whether I cannot make the distinction betwixt the Intellect of a Man and the Sense of a Brute. But it is only by the assistance of Antient Philosophy that I can do so: For it is a distinction that is not made in any modern book of philosophy that has fallen into my hands, but, on the contrary, our standard book for the philosophy of Mind, I mean Mr Locke's Essay, has plainly confounded Ideas and Sensations; and Mr David Hume has even given the preference to Sensations, by telling us that an Idea is but a weaker Sensation. Now, if there be no distinction betwixt Sensations and Ideas, there is certainly none betwixt Sense and Intellect.

It is only by the energies and operations of things, as I observed in the preceding Chapter *, that we can know their nature and essence ; an observation that holds particularly with regard to Mind, or incorporeal substances, of which we can know nothing by our Senses.

'The Mind, both of men and of brutes, must necessarily have two powers of different kinds ; the one a power by which it perceives and knows things, another by which it is excited to action, and to pursue or avoid certain things. The one of these may be called the *gnostic* power of the Mind, and the other the *practical*. Now, if it shall appear that our Mind and the Brute Mind are perfectly different in both these respects, there can be no doubt that they are Minds altogether different, and that the Intellectual creature, we call *Man*, is as distinct from the Brute as any one animal can be from another.

To begin with the gnostic powers of the Intellectual and Sensitive Mind.—I will show that these are essentially distinguished, first by the objects of their knowledge, and, secondly, by their manner of operating in apprehending, or perceiving their objects.

As to the first of these, there is a most comprehensive division of all the things in the universe, not to be found in any modern book of philosophy, but laid down by the Antients as the foundation, not only of their physics, but of their metaphysics and theology. The division I mean is that into things which have a real and permanent existence, and were from all eternity such as they are at present, without change or variation of any kind. The other member of the division is of things which have no fixed or permanent existence, but are constantly changing and varying : Such are all the things we perceive by our senses on this earth, which are in a constant vicissitude of generation and corruption. The former of these the antients

* Page 327.

tients considered as the only things that could with propriety be said really to exist ; the other, they said, were in a state something betwixt existence and non-existence ; they could not be said not to exist at all, nor could they be said to have any real existence, as they were not one moment the same that they had been the preceding. This so important distinction of things is laid down, both by Plato and Aristotle, and particularly by Plato, who has made it the foundation of his philosophy in the *Timaeus* * : And, indeed, he mentions it always where he treats of any abstruse point of philosophy ; and it is a distinction he got from the Pythagorean School, as is evident from the fragments of that philosophy still extant †. Now, of these two kinds of objects, so different in their nature, the former, say these philosophers, are apprehended by the Intellect only, the other by the Senses and the Sensitive Mind : And hence it is that the

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* The words of Plato are, Εστιν ουν δη κατ' εμην δοξαν πρωτον διαιρετειν τα δε. Τι το ον μεν αιη, γενεσιν δε ουκ εχον· και τι το γιγνομενον μεν, εν δε ουδεποτε. Το μεν δη νοησαι μετα λογου περιληπτον, και κατ' ταυτα ον· το δ' αυ δοξη μετ' αισθησεως αλογου δοξαστον, γιγνομενον και απολλυμενον, οντως δε ουδεποτε ον. *Timaeus*, p. 27. edit. Serrani. Here the learned reader will observe that, to what really and truly exists, that is, the το ον, Plato opposes the το γιγνομενον, a word of common use both in Plato and Aristotle, but very difficult to translate into English, as well as into Latin ; for neither of these languages has a word to express the present participle of the passive voice in Greek. The only idea, therefore, that I can give of it to the English reader is, that it denotes a thing in generation, or εν γενεσει, as the Greeks express it, or, as we may express it by a circumlocution, becoming something, but not yet become any thing.

† See a precious fragment of that philosophy yet preserved to us, and printed with Plato's works, viz. *Timaeus* the Locrian's treatise *De Anima Mundi*, (Platonis Opera, p. 94. edit. Serrani), where the reader will observe that what Plato calls the τα οντα, or the τα οντως οντα, *Timaeus* calls ιδεαι. See also Jamblichus *De Vita Pythagorae*, cap. 29. where he tells us that Pythagoras held nothing to be really existing but what was immaterial and eternal, and which, he said, were the only active things in the universe ; and, as to corporeal things, he said they had no existence, except by participation of these immaterial forms or Ideas. See also the same author, cap. 32. towards the end ; and Porphyrius *De Vita Pythagorae*, parag. 46.

former are called by the Greek philosophers *νοητα* or *intelligibles*, the other *αισθητα* or *sensibles*.

But this distinction, I know, will need to be farther explained to such of my readers as are not scholars, or have not learned at least the elements of antient philosophy ; and, in doing so, I will begin with the last order of things I mentioned, these being best known to us, namely, the things that are in a constant state of change and variation, such, indeed, as cannot, with any propriety, be called a state at all, any more than that Motion in which they continually are ; for, that there is no *State of Motion*, I think, I have very clearly proved elsewhere *.

That the things upon this earth are in that state, (if we will please to call it so), and that therefore they are in a constant flow, like a river, to which Heraclitus compared them ;—and that, as Lucretius informs us †, the death or dissolution of one thing is the generation or preservation of another, so that there is on the earth a constant change of the forms of things, is a truth, that our modern philosophers, who have experimented so much, and observed so attentively the operations of Nature, must be fully convinced of. Now, these things, thus passing away, and floating, as it were, betwixt *existence* and *non-existence*, are the objects, and the only objects, which Sense can apprehend : And, indeed, if they were not in constant motion, they could not even be so apprehended ; for it is only by the action of Bodies upon our organs of Sense that we have any sensation of any thing.

But, is there nothing in the universe except what is thus changeable and unstable ? And I say there is. And, in the *first* place, there is the Divinity, whom every theist will admit to be *without change*,

* Vol. i. p. 530. Vol. ii. p. 337. 358.

† Lib. i. v. 263. et sequens.—Aristotle says the same thing in the beginning of his book, *De Ortu et Interitu*.

change, or shadow of change. 2dly, If he believes that the Material world is the production of Divinity, and not a chance-production, but formed according to a plan of the most perfect wisdom, he must likewise admit that there is not only a material world, but an intellectual, in which all the forms, or ideas, of the several things in the material world exist, not embodied or incorporated with matter. And, *lastly*, if he be learned in the antient philosophy, he will know that those forms of things, being embodied, make what we call the *ideas* of things, giving to every thing here below life and movement, and, at the same time, constituting the essence of every thing, and making it that which it is, and nothing else *.—That there are such ideas of every particular thing, I have, I think, most clearly proved †. And, indeed, the wonder is, that ever our philosophers should have imagined that there could be *general* ideas, if there were not *particular*, or that an idea could be abstracted from any corporeal substance, if it did not exist there ‡. And, *lastly*, good philosophy teaches us that these ideas, being immaterial substances, are eternal and unchangeable, whatever bodies they may animate, or in how many soever different forms they may appear. And, therefore, however transient and fleeting the corporeal forms may be, the inward forms or ideas continue still the same, and therefore are of the number of those things which have a fixed and permanent existence.

The question, then is, How are things of this kind to be apprehended? Is it by organs of Sense? Can we, in that way, perceive the Supreme Mind, or Mind of any kind? Can we form any notion of the intellectual world? Or, with respect to the animated forms we see here below, can we perceive any thing other than
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* Vol. ii. p. 71. and following.

† Ibid. p. 76.

‡ Ibid. p. 75.—85.

shape, colour, or whatever else affects our organs of sense? Indeed, I hold it impossible to conceive that an immaterial substance can act, in any way, upon the organs of sense, in which way only it can be apprehended by Sense: And, as we know but of two gnostic powers, namely, Sense and Intellect, it follows of necessary consequence, that these eternal and unchangeable things can only be apprehended and known by Intelligence.

I have observed, more than once in the course of this work, that our intellect perceives the particular ideas of things only by their relation to ideas more general, or, in other words, it is only by Genus and Species that we comprehend any thing; and, when we are said to know a thing, the meaning is, that we know to what genus or species it belongs. In this way we know all animals, vegetables, and minerals, and, in short, every thing that falls under our observation. And, though we may know particular qualities distinguishing individuals from others of the same species or genus, yet these very qualities we know by reference to general ideas of such qualities: And the reason of this phaenomenon of the intellectual nature, which I may call extraordinary, as it has never been attended to by the philosophers of this age, is, that intelligence, by its nature, can perceive nothing but in system*. And, therefore, as I have observed elsewhere†, we are going on, from the time we first begin to use our intellect, in a continued progress from greater to lesser systems, till we come at last to the system of the universe, the contemplation of which, and of its great author, is the supreme felicity of our intellectual nature.

Thus, it appears that ideas can only be apprehended by intellect; and, therefore, unless we deny, as Mr Hume does, that there is such a thing as ideas, and maintain that what we call Ideas are nothing but
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* Vol. i. p. 60. Vol. ii. p. 108.

† Vol. ii. p. 90. 91.

weaker Sensations, or, unless we confound Sensations and Ideas, as Mr Locke does, we must allow that Intellect, as to the object of its knowledge, is perfectly different from Sense.

But I go farther, and I say that, not only Intellect does alone perceive the internal forms or ideas of things, but that it cannot, by its nature, perceive the external or corporeal forms of things, these being perceived only by the Senses, which are moved and affected by them. This may appear a very extraordinary position to many of my readers, who will be surprised to hear that, by Intellect, that superior faculty of our Mind, we cannot apprehend any corporeal thing. But, if we attend diligently to what passes within us, we shall find that it is only by the Senses that we perceive the bodily qualities of any thing, and that all, our Intellect perceives concerning it, is, that it belongs to a certain genus or species of things. This cannot possibly be perceived by the Sense, which can only apprehend the external form ; and this being reported by the Sense to the Intellect, from thence the Intellect infers the *Idea* or *Internal Form*, which, as I have said, is only known by its relation to other forms of the same kind ; the Intellect apprehending nothing but as part of some system, such as a Genus or Species is. It is therefore true, what I have elsewhere observed, that we cannot, with philosophical exactness and propriety, say that we *see* a man or a horse ; for the truth is, that we *see* only a certain mass of matter, coloured and shaped in a certain way ; but it is by our Intellect that we perceive it to be a man or a horse.

Thus, it appears that Intellect is as incapable of perceiving the objects of Sense, as Sense is of perceiving the objects of Intellect ; and, therefore, that the objects of these two gnostic faculties are perfectly distinct from one another, and consequently the gnostic faculties themselves.

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Before I have done with the objects of perception of the Intellect, there is one object of its perception particularly to be observed, as distinguishing it essentially from Sense. The object I mean is itself; for, as Plato tells us, the eye of the Intellect perceives itself, whereas the eye of the Body sees only external objects, but not itself. This is that prime faculty of the human soul, which we call Consciousness. This, Mr Locke, and the French philosophers, have made to be essential to all perceptions of every kind *; thereby plainly showing that they are unable to distinguish betwixt Intellect and Sensation, and consequently betwixt Man and Brute; for it is the great privilege of the Intellectual Nature, that it can recognize itself, that is, can make itself its own object. By this prime faculty, we are enabled, not only to contemplate our own Minds, but higher Minds, even the highest of all; for, as I have more than once observed in the course of this work, it is only by studying our own Minds that we can attain to the knowledge of superior Minds †.

Thus, it appears to be true, what I have all along maintained through this whole work, that we know nothing except by Ideas, which are apprehended by the Intellect, and by the Intellect only: And these Ideas are Substances immaterial. The *Ideas*, therefore, of Timaeus the Pythagorean, mentioned in the passage above quoted, and which he makes the proper object of Intellect, are the very same with those eternal and unchangeable things of which Plato speaks ‡: And Plato is in the right when he says, as he does
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* See Origin and Progress of Language, Vol. i. p. 155. second edition.

† Vol. i. p. 224. The reader, if he desires to know more of the Nature of the Human Soul, and the difference betwixt it and the Animal Nature, may consult the Author above quoted, (p. 330. 331.) Plotinus, (*Ennead. 5. lib. 3. et seq.*), where he will find explained that Philosophy which Plato kept a mystery during his life, but which was revealed by the later Platonists, particularly Plotinus, as Porphyry, his scholar, informs us in his *Treatise de Abstinencia, lib. 6. cap. 36.*

‡ Page 339.

in many passages of his works, that we know nothing except by Ideas. This is thought by many to be one of Plato's visionary notions, his doctrine of Ideas being now generally exploded. But, I think, I have shown that it is the truth of the matter, unless we will hold, with Mr David Huine and some antient philosophers, that we have no Ideas at all, but only operate by our Senses: The consequence of which necessarily is, that we have no knowledge at all ; because things perpetually changing and varying, such as we perceive by our Senses, cannot be the objects of knowledge ; nor can we say that what we affirm of any thing is true, any more than that it is false *.

The next thing I proposed to consider, was the manner in which those two faculties operate. And here the difference is most manifest ; for the Animal or Sensitive Nature operates only by the Senses, or the Phantasia, which is a kind of secondary sense, preserving in the Mind the images of sensible things, and presenting them to us on occasions ; whereas the Intellect, so far from operating by the Senses, or Phantasia, is disturbed by them in its operations, and never operates so perfectly as when it is entirely disengaged from both.

And thus it appears that Sense and Intellect are perfectly distinct, both as to the subjects on which they operate, and their manner of operating.

It is for the purpose of *acting* that every animal *knows* or *perceives*. After having examined, therefore, the gnostic powers of the Animal and of the Intellectual Natures, let us next consider their actions and pursuits. And, first, with respect to the mere animal, it is evident that he pursues nothing but what is conducive, either to the preservation of the animal life, or to the continuation of the kind :

* See what I have said upon this subject, p. 77.

For both which purposes Nature has furnished him with wonderful propensities, or instincts, as they are commonly called ; and, to the gratification of the appetites and desires, which arise from these propensities, the same Nature has been so bountiful as to annex a great deal of pleasure. On the other hand, the object, which the Intellectual Mind pursues, is, as I have shown *, the *fair* and the *handsome* ; and its happiness consists in the contemplation of these. And, though it pursue also what is *useful* and *profitable* for the being and well being of the animal life, yet it is for the sake, not of the animal life itself, but of the *το καλον* or *beautiful* ; which, therefore, is the ultimate object of its pursuit in all things †.

Another material difference, in practice, betwixt the Animal and Intellectual Mind, is, that every action of Intellect proceeds from
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* Vol. ii. Lib. ii. cap. 5. 6. and 7.

† There is a remarkable passage to this purpose in Porphyry's Life of Pythagoras, published by Kuster, and printed at Amsterdam in the year 1707—a work which I think of great value, as well as that of his scholar Jamblichus, upon the same subject. Porphyry there tells us that Pythagoras said that our first pursuit ought to be *the fair, the handsome, and what is of good report* ; which is perfectly agreeable to what the Apostle recommends to the Philippians, Chap. iv. V. 8. in these words : ‘ Finally, Brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report ; if there be any virtue, if there be any praise, think on these things.’ Nor will the reader be surpris'd to find that the purest and sublimest philosophy of antient times, from which the philosophy of Plato and of Aristotle derived every thing that was of any value in them, should be so agreeable to the doctrine of our Sacred Books. Our next pursuit, said Pythagoras, should be *the useful, or what is profitable in life*, that is, what is necessary for supporting our animal nature. And our third pursuit, and last in order, should be *pleasure*, but not pleasure of the vulgar kind, but such as is of an Intellectual Nature, arising from the *fair* and the *handsome* : So that, according to this noble philosophy, the *το καλον* ought to be the first and last of our pursuits ; and, I think, I have shown, in the Chapters above quoted, that the Intellectual Nature can have no other pleasure or enjoyment.

an opinion formed concerning what is good or ill, beautiful or the contrary, in the action. When we do so, we are said to act from *will*, which is always determined by some opinion formed, of the kind I have mentioned : Whereas, when we act from mere appetite or inclination, without deliberation or opinion formed, we act as the Brute does always ; for he has no *will*, but is prompted to action by natural impulse, or *ὁρμη*, as the Greeks call it *.

A third very material difference is, that Intellect, in all its operations, proposes ends, and devises means to accomplish these ends ; whereas the Instinct of the Brute proceeds without consideration, either of ends or means.

And thus it appears, that, in the practical life, the Animal is as different from the Intellectual Creature, as he is in knowledge and apprehension ; and, as we are compounded of the Animal and Intellectual nature, we may observe, as I have said, the same difference in our actions.

From these observations, I think, it is evident, not only that Sense and Intellect are quite different in their natures and operations, but belong to substances quite different ; and, therefore, that, though they may be united in one corporeal frame, which is our case, yet they ought to be considered to be as distinct, as if they were in separate bodies. This is an observation, I think, of great consequence in the philosophy of Man, which never can be rightly explained, but upon the supposition that our Intellectual Mind or Soul is a substance distinct from our Animal or Sensitive Nature, though their operations be so blended together, that it is a matter of nice discernment,

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* See what I have said upon the subject of *will*, and the difference betwixt it and the *ὁρμη* of the brutes, in Vol. i. Book ii. Chap. 21. of this Work.

and great philosophical accuracy, to separate them : And it is for this reason, that, in no modern book of philosophy, which I have seen, they are accurately distinguished. But the philosophy of Plato and Aristotle has very clearly distinguished them ; and, particularly, the commentators upon Aristotle, have laid down the distinction most clearly, as I have elsewhere shown *. This, as well as other things, Plato and Aristotle have taken from the Pythagorean School, in which the doctrine of the four Substances, of which I make Man to be composed, is most clearly laid down, and particularly the distinction betwixt our Animal and Intellectual Natures ; and it is shown that the great business of philosophy is to separate these two, which, when we first come into the world, are so closely united †.

Thus, I have established, in general, the distinction betwixt Sense and Intellect, and have applied the distinction in particular to our Sensitive and Intellectual Nature : And I am now to inquire whether the Brute has not Intellect as well as we ; so that there is no difference

* Vol. ii. p. 137. See also what I have said upon this subject, page 7. of this Volume, and page 140. and page 167. of Vol. i. and Vol. ii. p. 166. and following.

† See a Life of Pythagoras, written by an anonymous author, and published by Kuster in the book above mentioned, along with the Lives of the same philosopher by Porphyry and Jamblichus. In the 62. page of the work, the doctrine of the Microcosm, and of the four distinct substances of which we consist, is most clearly laid down : See also what the same author says, p. 57. and 58. And Jamblichus, in his Life of Pythagoras, p. 184. tells us that our chief business here below is to free our Intellectual part from those bonds by which it is so closely connected to our animal part, when we first come into this world. And to the same purpose, Porphyry, in his life of Pythagoras, (parag. 46.) ; where it is to be observed, that, speaking of the *Nous*, which is to be delivered from this bondage, he uses the word *κατακεχωρισμενος*, which must signify that the *Nous* is a thing quite distinct and separated from every thing else in our composition.

difference betwixt Man and Brute, except, perhaps, in the degree of Intellect.

Without denying the distinction that I have laid down betwixt Sense and Intellect, and the application of that distinction to the case of Man, it may be said that the composition of the Brute is the same as that of Man, and that he has an Intellectual as well as a Sensitive Nature. And for proof of this, many extraordinary instances may be given of things done by the Brute, which appear to exceed, not only the natural sagacity of Man, but even what he can do by the arts and sciences which he has acquired. A book has lately fallen into my hands, which contains more curious particulars relating to the sagacity of Brutes, particularly of Elephants, than any that I have seen. It is the work of a French gentleman now living, who was long in the East Indies and other parts of Asia, and who appears to me to be a man of very accurate observation *. The Dog, among us, shows wonderful sagacity; and, when he is tamed and domesticated, does things that are very like the actions of an intelligent creature. But the Elephant has still more sagacity, and what we would call better natural parts; for, according to this French gentleman's account of him,

* The Book is entitled, *Essais Philosophiques, sur les mœurs de divers Animaux Étrangers*, &c. The Author does not set down his name; but, from the account he gives of himself, it appears that he was an officer in the French service in the East Indies, and was much employed there both in war and in negotiations with the princes of the country. He travelled a great deal in the course of these employments; and particularly, he made the journey from India to Europe by land twice. The Book is printed in Paris in the year 1783, and was sent me from thence by a friend of mine, who is there at present, Mr Andrew Lumisden, with a very polite card, in which he tells me the name of the Author, but says he chooses to conceal it. I take this opportunity of publicly acknowledging this mark of attention in a Gentleman whom I very much esteem both as a man of worth and a scholar. He tells me, that, though the Book is not elegantly written, the facts related in it may be depended upon; and, for my own part, I give the more credit to the facts that the Author does not affect the ornaments of style.

him, he may be said to be really a servant, who will do what his master directs him to do, even in his absence. For proof of this, he tells us a story, which he himself witnessed, of two Elephants, who were employed by their masters to demolish a wall, which they did, when their masters were not present, with as much skill and address as men could have done it, who had not the use of instruments of art. And to this he says they were encouraged by their masters promising them some fruits and spirits, such as are made in India †; for it seems the Elephants there have got a taste and a liking for spiritous liquors. And he tells another story of one, who having been twice brought to a French hospital, to have a wound he had received dressed, came regularly of himself afterwards, without his keeper or attendants. The Elephant has also the same attachment to his keeper that a Dog has here to his master, and will do every thing for him in his power; so that he may be said to have human sentiments of gratitude and friendship, as well as a human understanding.

But, nevertheless, according to the distinction I have made betwixt Sense and Intellect, it appears to me evident, that even the Elephant is only a better kind of brute.

For, in the *first* place, I ask, Has the Elephant any conception of those invisible, eternal, and unchangeable things, which, as I have shown, can only be apprehended by the Intellect? I do not believe it ever was maintained that the Elephant, or any other brute, has the idea of a Supreme Mind, though I hold that to be a necessary consequence of Intellect come to the least degree of perfection. But I ask, whether he has any perception of those internal forms which constitute the nature and essence of all things here below, and produce the movements of all bodies, organized and unorganized? Has

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† Page 181.

he any idea of those forms rising one above another, and constituting what we call specieses and genuses, some more general, some less, till we ascend to universals? I believe it will be hardly said that he has; and yet, if he has not, I think, I have clearly shown, that he has not Ideas, without which it is impossible he can be an intelligent creature. Does he apprehend things in system, in which way only Intellect apprehends them? And, *lastly*, Is he conscious of what he does? Does he reflect? Does he make himself his own object, and approve of or condemn himself, as we do? He has not, therefore, the same gnostic powers that man has.

As to practice, there is not the least reason to believe that the elephant, or any other brute, is determined to action by any opinion that he forms of what is *good* or *ill*, *beautiful*, or the contrary. And, if it be true, what is said above, it is impossible he can have an idea of what is *good* or *beautiful*, or, indeed, any ideas at all. And there is as little reason to suppose that he proposes ends in his actions, and contrives means for accomplishing these ends.

And thus, I think, it is evident that, by whatever other principle of action the Brute may be guided in his operations, it is not by Intellect. And, indeed, if it were, his Intellect must be supposed to be an Intellect of a much more perfect kind than ours: For his operations, especially in his natural state, are much more agreeable to truth and nature than our actions, and, indeed, are perfect of the kind; and he has a knowledge of some things, much superior to what we can acquire by any memory, imagination, intelligence, or reason, that we are masters of, of which I have elsewhere mentioned some wonderful instances *.

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* See upon this subject, Vol. ii. Book iv. Cap. 6. where I have mentioned some wonderful examples of the operations of Instinct, far surpassing any thing that we can

If it be asked, what this principle of life and motion in the Brute is, which does such wonderful things ? my answer is, that it is Instinct. If it be further asked, what Instinct is ? I must have recourse again to my antient books ; for I don't know that there is any thing in our modern philosophy which teaches us what Instinct is, any more than what Intelligence is. But Aristotle informs me that it is Mind acting in Bodies organized or unorganized, but without Intelligence. To this principle he gives the name of *Nature*, distinguishing it both from God and Man, as I have elsewhere observed *.

If a more particular definition of Instinct is desired, I say it is a determination given by Almighty Wisdom to the Mind of the Brute, to act in such or such a way, upon such or such an occasion, without Intelligence, without knowledge of Good or ill, and without knowing for what end or purpose he acts. Nor should this way of acting appear extraordinary even to a man who is not a philosopher, as we see examples of it daily in our own species : For a Man, under the direction of another of superior understanding, will use means to accomplish an end, without having any idea of either ; and, indeed,

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can do by our Intellect or Reason. Many more might be given, particularly with respect to its directing the Animal to find out remedies for any diseases it may have. Upon this subject, there is an antient treatise published by Fabricius, in his *Bibliotheca Graeca*, Vol. iv. p. 296. It is entitled, *περι των κατα επιπειθειαν και συνεπειαν*. It is the work of Anatolius, a philosopher of the Alexandrian School, and a cotemporary of Porphyry. There he has collected a surprising number of instances of animals finding out their own cures, as we see the dog does among us. This treatise is commented upon by a learned German, one Rendorphius, whose work Fabricius has also published.—The Indians of North America know the virtues of many simples that we are ignorant of ; and it is certain that they can cure diseases that we cannot cure. Now, this knowledge they have got, as I have been well informed, chiefly by observing the instinct of Brutes.

* Vol. ii. p. 360. in the note.

in my opinion, by far the greater part of mankind are destined, by God and Nature, to be governed in that way *.

It will no doubt be objected, that a determination of the Mind of the Brute to act so variously upon different occasions, can hardly be conceived without judgment or intelligence. But, let us consider how Nature acts in other organized Bodies, such as the vegetable. We see that a vegetable, reared in the corner of a dark cellar, will bend itself towards the light which comes in at the window ; and, if it be made to grow in a flower pot with its head downwards, it will turn itself up into the natural position of a plant. Can it be maintained that the plant, in either case, does what it does from any judgment or opinion that it is best, and not from a necessary determination of its nature ?

But, further, to take the case of bodies unorganized, or inanimate, as they are commonly called ?—How shall we account for the phenomena which chymistry exhibits to us ? When one body unites with another, and then, upon a third being presented to it, quits the first and unites itself with it, shall we suppose that this preference of the one to the other proceeds from any predilection or opinion that it is better to cleave to the one than to the other ? or shall we not rather say that it proceeds from an original determination of the elemental mind, which moves these substances so and so upon certain occasions ?

It may be said that phenomena so extraordinary can only be accounted for by the immediate interposition of Deity. But this is recurring to a notion, which I hope I have sufficiently refuted, that God is the immediate author of Motion : And, if this cannot be, it only remains that God has created the Minds of such substances

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* Vol. ii. p. 300.

with a determination to act so and so, upon such and such occasions ; and, as the oeconomy of the animal is much more artificial and complicated than the oeconomy of either the vegetable or the unorganized body, so the motions of the animal must be much more various, but all proceeding from the same cause, namely, an original determination of the mind, making part of its nature and essence, to perform those various motions on different occasions. Such an original determination would indeed, with respect to Body, be altogether inconceivable ; and, therefore, to suppose it to be the effect of an original impulse given to their bodies, is perfectly absurd, as absurd as Des Cartes's notion that they are mere machines. But Mind is of a nature altogether different from Body, and is susceptible of modifications in its original constitution, of which Body is altogether incapable.

With this philosophy of mine upon the subject of the Brute Nature, I am persuaded that not only those things I have mentioned of the Elephant, but all the actions of the Brute, will, upon the strictest examination, be found to correspond. The governing principle of the Intellectual Life is, as I have shown *, *the fair and the handsome* ; nor, indeed, can any action, proceeding from any other motive, be said to be the action of an Intelligent Being, but only of a mere animal. Now, there is not the least appearance, in any part of the Brute oeconomy that they have any idea at all of what is beautiful : Particularly in the business of copulation, which is an essential part of their oeconomy, they give no preference to one female before another ; nor has the female, when she is in season, any predilection of one male rather than another. And, in general, in their whole oeconomy, their habitations, their eating, drinking, evacuations and pastimes, they show not the least regard to what is beautiful, graceful, or becoming.

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* Page 346.

As to the brutes that are domesticated, trained, and disciplined by us, there are some of them, such as the Dog and the Elephant, that, by their natural instinct, are disposed to attach themselves to our species, almost as much as they are attached to their herds, or to their families, in the natural state ; and some of them also are much more tractable and docile than others. We are therefore not to wonder that the Dog and the Elephant are taught to do such extraordinary things, (for it is by teaching only they learn to do them), or that they show so much kindness and affectionate attachment to a master who is kind to them ; which is such, that in its effects it comes very near to that virtue we call *gratitude* in Man : But there is this essential difference betwixt the two, that a Man who has the virtue of gratitude, as well as any other virtue, must be conscious of it, and know the beauty of it ; now, of this the Brute is incapable.

There is one thing to be observed in the Brute Life, which, I think, makes it evident that they possess not that prime faculty of reflecting, and making themselves the object of their own contemplation.—The Brute is never dissatisfied with his condition, never envies or repines, because he is not conscious of his own condition, and, consequently, does not compare it with that of any other. Whereas, discontent with our own condition, and envy of that of another, makes a very considerable part of human misery. And it would make the brutes as miserable as we, if they could compare their situation with that of other animals of the same species ; and still more miserable, if they could compare it with animals of a higher species, which is further than human folly and vanity goes, at least in most men ; for I believe there are very few who repine that they are not angels or archangels, though there be many reasoners upon the origin of moral evil, whose arguments appear to me to resolve all into a complaint, that they were created Men, and not Intelligences of an higher degree.

The sum of what I have said upon this distinction betwixt Man and Brute is, that the Intelligence, which governs the Brute, is not in him as the Intelligence, by which we are governed, is in us, but is external ; and, being infinitely superior to ours, it is no wonder that he is very much better directed and governed than we are. We are not, however, from thence to infer, as some rashly do, that the Brute is a more perfect or happier animal than we are : For the Brute is not capable of the greatest happiness, which consists in the enjoyment of Intellect, but must be satisfied with the pleasures of the animal nature ; whereas we are capable of intellectual pleasure ; and therefore are by nature an animal of an higher order, and destined for greater happiness, though, for want of cultivation of our Intellect, and by the prevalence of our animal nature over it, (not an animal nature governed by infinite Wisdom, like the animal nature of the Brute, but by our imperfect Intellect), we are often degraded to brutes, and made more miserable even than they, at least for a certain time.

I have elsewhere observed *, that there is this difference betwixt the works of Art and the works of Nature, (among which I reckon the Brute †), that the principle of movement in the one is from without, whereas the principle of movement in the other is from within. Man, being an animal as well as the Brute, so far resembles the Brute, that his principle of movement is also from within ; but that principle in him is directed by Intelligence, which is also within him, and is his own ; whereas the Brute is directed by Intelligence from without, which has so formed his principle of movement, that it acts by Intelligence, though without Intelligence, according to a distinction I have made in another place ‡. Now, we may conceive

* Vol. ii. p. 362. in the note.

† See Vol. ii. p. 361. in the note, where I have fully explained the difference which Aristotle makes betwixt *Nature* and *Man*, and *Nature* and *Art*.

‡ Ibid. p. 361.

ceive a work of Art, not only to be formed and contrived by Intelligence, but to have its movements directed by Intelligence, and these very various and complicated, such as those of the Brute are. A gentleman told me, that he saw in Presburgh in Hungary, a machine of the human form, so contrived, that it played at chess, and at that game beat another gentleman in company, who was a good player : And this automate was so ingeniously contrived, that its movements had all the appearance of originating from within, like those of the Brute ; at least, the gentleman, who saw it, could not discover any thing from without, from which the movement came *. And we need only suppose that the movement did really come from within, as it appeared to do, and then it would be a perfect Brute ; which though human art cannot form, it is not to be wondered that it should be the work of Divine Wisdom.

I have insisted the more upon this difference betwixt us and the Brute, not only because I do not find it explained in any modern book of philosophy, but because I observe an antient philosopher

* There is an account of this wonderful machine in the Eleventh Volume of the Edinburgh Weekly Magazine for 1771, p. 196. contained in a letter from the Rev. M. Louis Dutens, translated from the French, in which many curious particulars are mentioned concerning this Automate, and this, among others, that, when the author, who played a game with it, made a false movement, by giving the *Queen* the move of a *Knight*, the wooden gentleman was not to be imposed upon in that way, but took up the *Queen*, and put her in the place she had been removed from. He adds, that the artist, whom he calls Kemple, withdraws at any distance you please, and lets the figure make four or five movements successively, without approaching it. He further says, that the *moving force*, in this Automate, is produced by the artist winding up, from time to time, the springs of the arm, which moves the men. But this *moving force*, he says, is quite distinct from what he calls the *guiding force* : And so far this machine resembles both Man and Brute.—There were two Automates shown in Edinburgh about nine or ten years ago, and, I suppose, in other towns of Britain, who played tunes upon the German flute in parts.

philosopher of later times, I mean Porphyry, one of the greatest philosophers of the Alexandrian School, has maintained, in his treatise *De Abſtinentia*, that the Brutes have Intelligence as well as we, different from ours only in degree. And this opinion he pretends to ſupport by the authority of Plato and Aristotle. But in this he is certainly miſtaken; for it is evident that both Plato and Aristotle diſtinguiſhed clearly from one another the *Nous* and the *ψυχή*, that is, *Intelligence* and *Animal Life*. And Aristotle particularly has ſaid, in ſo many words, that the *Nous*, or *Soul*, is ſomething divine, and has qualities, when in a ſtate of ſeparation from the body, quite different from thoſe of the animal life *. And the ſame is the doctrine, as I have obſerved †, of an older and better ſchool of philoſophy than either that of Plato or Aristotle, I mean that of Pythagoras, the beſt ſchool of philoſophy that ever was in Europe, and from which every thing that is valuable in the other two philoſophies is taken, as is evident, both from the teſtimony of the philoſophers of the Alexandrian School, ſuch as Porphyry and Jamblichus ‡, who had ſtudied it very diligently in books which are now loſt, and from ſome moſt precious fragments of it, that are ſtill preſerved, ſuch as Timæus, *De Anima Mundi*, and Archytas, *Of the Principles of Things*, from which Aristotle has taken his *Categories*, beſides ſeveral very valuable fragments, collected by Gale, in his *Opuscula Mythologica*.

What, I am perſuaded, has led Porphyry into this error, is the not diſtinguiſhing betwixt *Reason* and *Intellect*; a diſtinction which, as I have obſerved elſewhere §, the Antients made; but by *reasoning* they meant no more than comparing. Now, it is certainly true that
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* Vol. i. p. 140. 141.—167.

† Page 348.

‡ See Porphyry's Life of Pythagoras, and Jamblichus's Life of the ſame philoſopher, quoted above, p. 348.

§ Vol. i. p. 101. See alſo Orig. and Prog. of Language, Vol. i. Edit. 2d, p. 81.—109. where the reader will find an explication of the word *λογος*, which is the Greek word for *Reason*, as diſtinct from *Nous* or *Intellect*.

the Brutes reason in this sense, when they compare together their perceptions of Sense. And, in consequence of that comparison, they may be said to form opinions, and to determine themselves to act in such and such a way : And, accordingly, I observe that Plato joins Sense and Opinion together ; and it is by these, he says, that we know things that have no real or permanent existence, that is, all corporeal things, or things of passage, that is, in generation and corruption *. But neither Plato nor Aristotle ever said or thought that the Brutes compared Ideas, or, indeed, that they had Ideas, or any comprehension of those invisible and eternal things, which alone, in their language, are said to exist †.

Another reason may be given why Porphyry was inclined to maintain this opinion, more at least than he would otherwise have been, namely, that, as he was arguing against the killing of animals for food, it furnished, no doubt, a very strong argument against that practice, if he could prove that the Brutes had Minds such as ours ; for then the killing and eating of brutes was no better than the killing and eating those of our own species.

Having thus defended the *humanity* of Man, if I may so speak, it will not be improper to say something in addition to what I have already said concerning the humanity of the Orang-Outang in this Volume, and in the First Volume of the *Origin and Progress of Language* ‡. The French gentleman above mentioned, who has published

* See the passage from Plato, quoted p. 339.

† See what I have said upon this subject, Vol. ii. p. 97. where I have shown that the reasoning or comparative faculty can only be exercised in three ways, viz. by comparing Sensations with Sensations, in which way only I say the Brute compares—Ideas with Ideas—or Sensations with Ideas. In these two last ways the Brute cannot compare, because he has not Ideas.

‡ Second Edition, Book ii. Chap. 4. and 5.

published his Travels in the East Indies, among other curiosities which he mentions in that country, has made some observations upon the Orang Outangs. He never saw but one of them, and that was in the Island of Sumatra ; but he appears to have inquired much about them ; and he informs us that it is the universal opinion of the East Indians, that he is a man, but a *wild man*, or *man of the woods*, which the name of Orang Outang imports. Those people, therefore, in whose country they are, and who should best know them, are all of opinion that they are men and not monkeys, which are animals perfectly well known in India, where they are in great numbers : And, accordingly, our author has given us a very particular account of their manners, and method of living, the best, I believe, that is extant ; and, from what he says of them, and of the Orang Outang, it is evident that he did not believe that the Orang Outang was of their species. At the same time, he lets us know that the opinion of the European philosophers is that he is a monkey ; but he observes very justly that in Europe only single individuals of them have been seen, and these, children and in a state of captivity and confinement, not in their natural state ; whereas, in India, they are seen in that state ; and, as our author informs us, they live in the woods, or upon mountains of difficult access, in little societies, which do every thing for their defence or subsistence that can be expected of men absolutely wild and savage : And he says he was informed by the Malayse, and all the other Indians, that, when they are in a state of liberty, they copulate most willingly with the females of our species ; and they added that the offspring of that copulation does likewise produce * ; which, if true, puts an end to the question, and is decisive of their humanity.

The one he saw in Sumatra was four French feet high, and betwixt eight and ten inches more, that is, above five English feet, which

* *Essays Philosophiques*, &c. p. 571.

which at present is near to the size of a soldier among us. His body was covered with hair somewhat thicker upon the back than before. He was altogether of the human form; nor was there any thing in his shape different from that of other men, except that his arms appeared to be a little longer than ordinary, which he says was caused by his using his hands, as well as his feet, when he ran or leaped a ditch, though commonly he walked erect. He says he saw no female of the species; but he was informed that they were like other women, and, particularly, that they had their monthly courses. He adds, that it is supposed by the Indians, that the time of their gestation is seven months; but this they do not know with any certainty, because none of them propagate in the state of captivity *, with which they do not at all agree, but continue sad and melancholy, uttering no sounds, but such as express pain and impatience. They are not, however, he says, wicked or malicious, though very wild; and they come very soon to understand what they are commanded to do. Their melancholy and discontent with their condition, he says, throws them at last into a consumption, of which they soon die: And, accordingly, he says, the one that he saw in Sumatra, and whom he observed to be in this melancholy state, died, as he was informed, soon after he left the island †.

From these facts, the opinion which our author formed is that they are of the human kind, but of a species different from our's ‡; for he, as well as the other French philosophers, have adopted the notion of Linnaeus, that the human species is divisible into other subordinate specieses; a notion which must appear very extraor-

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* Ibid. p. 370.

† Ibid. p. 395.—371.

‡ See Vol. i. of the Origin and Progress of Language, p. 306. Second Edition...

dinary to a man who has studied logic and the antient philosophy. For he must know how to distinguish betwixt a genus and a species, and betwixt the lowest species of any genus, which is only a species, and the higher, which are both genres and specieses in different respects: And he must likewise know, that the lowest species of any genus is incapable of any subdivision into other specieses; for the animals of that species must either have the specific difference, which distinguishes them from other specieses of the same genus, or they have it not; and betwixt these two there can be no medium *. Thus, Man is one of the lowest specieses of the genus Animal; the specific and distinguishing difference of which is *the being rational, and having the capacity of intellect and science* †. These qualities, therefore, the Orang Outang must have, otherwise he is not a man; and, though he have them in a less degree than others of the same species, he is not, for that, of a different species, but only an inferior animal of the same ‡.

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* What I have said here concerning genus and species is shortly said; but it is explained at some length in the Fifth Chapter of the Second Book of the First Volume of the *Orig. and Prog. of Language*, (Second Edition), where, I will venture to say, that the reader will find that division of things into genus and species, which is the foundation of all logic, and likewise the nature of definition, which is essential to all science, better explained than in any modern book that has fallen into my hands. And he may be instructed by what is there said, if he be not one of those great geniuses of the present age, who think they can do without the *organum* of philosophy, and of all sciences, as the antients called Logic, being that art which Cicero recommends so much, calling it, ‘*Omnium artium maxima, quae docet rem univ[er]sam tribuere in partes, latentem explicare definiendo,*’ &c.; *Brutus*, Sive de *Claris Orat.*

† Of the distinction betwixt the *rational* or *comparative* faculty and the *intellectual*, see what I have said above, p. 359.

‡ If the reader desires to be more particularly informed of the distinction betwixt *specific differences* and *variations of the species*, and betwixt *variations of the species* and *variations of the individual*, he may consult the above quoted First Volume of the *Origin and Progress of Language*, p. 307. Second Edition.

What has introduced this improper way of speaking, with respect to the species *Man*, is the not having observed a progress in this species which is characteristic of it, distinguishing it from every other, and, accordingly, is made part of the definition of it above given; for *the capacity of intellect and science*, mentioned in the definition, supposes that an animal may be a *man*, without being actually intelligent or scientific, though he be not in the state of infancy but full grown; for it would be ridiculous to suppose that the definition of the Peripatetic School could apply only to infants, and not to men come to a state of maturity *. Being ignorant, therefore, of this progression of the species, which I hold to be a fundamental principle of the history and philosophy of Man, Linnaeus has supposed that men, in the first stages of this progression, were of a species different from other men; when he might have as well supposed that an infant among us was of a species different from a full grown man.

The only question, therefore, with respect to the Orang Outang, is, Whether he be not in what may be called the infantine state of our species; by which I mean that state, when man, come to his full growth, has only the capacity of intellect or science, but not the actual use of them? And, setting aside what this latest French traveller has said of him, and many other travellers, who have seen him, or had certain information of him, not in captivity, but in his natural state, full grown and living in society, I think it is evident, from the account Buffon gives, which cannot be suspected of exaggeration, of the one he saw, and whom he appears to have studied very much, that he was of the human species, and, I think, a good deal past the infantine state of the species, though he was in the infantine state of the individual; for he was not above two years of age, and yet he was of greater

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* See upon this subject what I have said in the *Origin and Progress of Language*, Vol. i. Second Edition, p. 339. 340.

stature, being about two and one-half French feet, and showed much more sense and docility than any infant of that age among us. And, indeed, what he did was wonderful in so young a child ; for he sat at table, did what he saw the rest of the company do, unfolded his napkin, wiped his mouth with it, used the spoon and fork to carry his victuals to his mouth, filled his glass, and *shocked* with it, as the French call it, when he was invited so to do : With all this he was perfectly tame and gentle, and even kind and complaisant ; for he gave his hand to the company to conduct them down stairs, and came up to gentlemen and ladies to be caressed by them, as our children do, and walked with them with gravity and composure *. Now, if it be true

* Buffon, Vol. xiv. p. 53. See what I have written upon the subject of the Orang Outang, Vol. i. of the Origin and Progress of Language, Second Edition, Book ii. Chap. iv. and v. p. 343. The account which Buffon gives of this Orang Outang infant is such, that, if he had believed, as I do, that the Orang Outang belongs to our species, one should have thought that he magnified very much to support his hypothesis, so much as to make him not only a man, such as we are, but of a race of men much superior to us. And, indeed, what he says must appear incredible to those who have so narrow a notion of the human species, as to believe that all men, in all ages and countries, have been, and are such as we see them in Europe. But, if we give any credit to travellers, who have been among barbarous nations, (and how else can we be informed of those nations), we must believe that the children of savage men are very much stronger bodied, and farther advanced in natural sagacity and understanding than children of the same age among us. Keopin, the Swedish traveller, relates that he himself saw a child, the offspring of a woman by an Orang Outang, run about as soon as it was born, and climb up upon every thing that was near it, as I have related, p. 133. And M. de la Brosse, a traveller whom I have quoted in the Origin and Progress of Language, Vol. i. p. 277. of the Second Edition, relates of this very animal, the Orang Outang, that two young ones whom he purchased, much younger than M. Buffon's Orang Outang, the one of them being no more than fourteen months old, and the other only twelve, sat at table, and did several of the things mentioned by Buffon, contrived to make themselves understood by the cabin-boys aboard his ship ; and, when these boys did not give them what they wanted, seized them, bit them, and threw them down.

true what Aristotle has said *, that it is the Mind chiefly, or Internal Principle, which distinguishes the specieses of animals from one another, I ask what was wanting to denominate this animal a Man? Buffon acknowledges that he had not only the outward form of a man, but the inward principle, being of a disposition and character altogether different from a monkey, ape, or baboon, as he has explained at some length †. What objection, then, could be to his humanity, except that, being two years of age, he did not speak? But, do the children of that age, among us, speak, though brought up among persons that speak, and taught as much as their mothers and nurses can teach them? Is it possible to believe, if this infant had not died about the age of three, but had lived to be a man, and had been put to the school of Mr Braidwood among us, or of the Abbè de L'Epée in Paris, or without such schooling, that he would not have learned to speak by mere imitation, though, it is likely, more slowly than our children do, as being of a savage and dumb race, and consequently not inheriting that aptitude and facility to learn to speak, which our children have.

And here I must observe, that those who have contrived this new definition of man, by which they make *speaking* to be essential to him, must maintain that articulation is natural to man; for, if they allow it to be artificial, and to be acquired only by teaching or imitation, then, when we say that a man does not speak, we only mean that he has not had an opportunity of being taught: And, even if we should suppose that there were some defect in his organs of pronunciation, or in his hearing, (which is common enough at present, and is becoming more and more so every day), I think it would be hard to refuse him the appellation of a man, if he showed that he had the understanding of a man. But the Orang Outang has no such defect, either in his organs of pronunciation, or hearing, as has been found upon dissection; and one of them

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* See Vol. i. p. 341. of *Origin and Progress of Language*, Second Edition.

† Buffon, *ubi supra*.

I have mentioned*, had learned to articulate a few words, and might no doubt, if he had lived, been taught to speak. Buffon's objection, therefore, to the humanity of the Orang Outang that he was acquainted with, must not have been, that he had not learned to speak, being a child only of two years of age, but that he was not capable of learning. This certainly was more than Buffon knew, and is in the highest degree improbable. But, supposing he had lived, and had never learned to speak, which is the case of Peter the Wild Boy, I would have Mr Buffon consider how difficult an operation articulation is ; or, if he is not learned enough in the mechanism of speech to know this, I would have him try himself to pronounce the Greek *ϑ*, or the English *th*. This is what I know he cannot do ; and for what reason ? not for any defect in his organs, but because he has not been accustomed from his infancy to do so. And, if this be so, what must the case of the Orang Outang be, who never has been accustomed to speak at all, and who is not of speaking parents, but of a mute savage race † ?

I will only add upon this subject of the Orang Outang, that, if the reader is not convinced of his humanity, by the accounts of so many credible travellers concerning him, whom I have quoted in the First Volume of the Origin and Progress of Language, and also by the testimony of antient authors, whom I have also quoted in that book, and some of them in this Volume, it can only proceed from a ridiculous vanity, which makes him scorn to be of a race who were once Orang Outangs ; and he might as well be ashamed that
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* Page 66.

† See what I have said, Vol. i. of the Origin and Progress of Language, (p. 300. of the Second Edition), of the great difference betwixt the children of the savages and of civilized men, in many things, and particularly in a disposition and aptitude to learn.—See also what M. Buffon himself has said of the great difficulty with which a child learns to speak ; Ibid. p. 296.

he himself was once an embryo in the womb, and then an infant, very much weaker, and every way more despicable, than the infant of an Orang Outang.

The case of the Orang Outang, I think, it is impossible to distinguish from the case of Peter the Wild Boy ; for, if Mr Buffon's Orang Outang was not a man, because he had not learned to speak at the age of *two*, it is impossible to believe that Peter, who, at the age of *seventy*, and, after having been above fifty years in England, has learned to articulate but a few words, is a man ; and yet I have it from most respectable authority, of a man of high rank now living, and who remembers very well, being then above the age of twenty, and in London, when Peter was brought over, that his humanity was never doubted of, though he had been caught running upon all four in the woods of Hanover. I have related in this Volume many particulars concerning this extraordinary phaenomenon, which I myself observed, or learned from others ; but, since printing that part of the work, I have received further information concerning him, which I will here give to the public, from a young gentleman of Oxford, of the name of Burges, who took the trouble, at my desire, to go and see him, and inquire about him. He is well known as a scholar, by several ingenious things that he has published ; and I hope he will contribute not a little to the great work that is going on at Oxford, of restoring the philosophy of the Antients, which will be greatly to his honour, and, I think, very much to the honour of the University, if they shall be the first in Europe to set on foot again a philosophy that has been so long extinct, to the great loss, not only of good learning, but of religion ; for all the philosophy, that has been in fashion since the Antient was put down, has had a tincture, more or less, of Materialism and Atheism.

I will give Mr Burgefs's account of Peter in his own words, as I cannot give it in better. After acknowledging, in the most polite terms, the obligation which, he is pleased to say, he has to me, for giving him an opportunity of seeing so great a natural curiosity, he tells me that he had been twice at Berkhempsstead, to see Peter, within a mile of which he lives in a farm-house called Broadway, and that he had got his information from the farmer with whom he lives—from the master of the Inn at Berkhempsstead—from the people at the *Two Waters*, a small village, within about two miles of Berkhempsstead—and from an old gentleman in Hempsstead, a greater village, within about three miles of Berkhempsstead : Then he proceeds thus :

“ Peter the Wild Boy lives at a farmer Brill's, at a place, or rather a farm, called Broadway, about a mile from Berkhempsstead, where he has lived about thirteen years. The farmer said he was eighty-four years old. He has a fair clear countenance, and a quick eye. He is about five feet six inches high ; and is still very robust and muscular. In his youth he was very remarkable for his strength. He is said to have sometimes run seventy or eighty miles a-day. His strength always appeared so much superior, that the strongest young men were afraid to contend with him : And this strength continued almost unimpaired till about a year and a half ago, when he was suddenly taken ill, fell down before the fire, and for a time lost the use of his right side ; since which, it has been visibly less than before. The farmer told me that his portrait has been lately several times taken. A print of him would be a great curiosity, and an ornament to your book.

“ I could get no intelligence of the old woman whom you mentioned ; but I met with an old gentleman, a surgeon, at Hempsstead, who remembers to have seen Peter in London, between the years

1724 and 1726. He told me, that, when he first came to England, he was particularly fond of raw flesh and bones, (he is at this day very fond of a bone, with which he will amuse himself for a long time after it has been picked by any other person); and that he was then always dressed in fine clothes, (the dress he remembers him in was green and gold), of which Peter seemed not a little proud. He still retains his passion for finery, fine curtains, clean breaches, smart hat, &c.; and, if any person has any thing smooth or shining in his dress, it will soon attract his notice, and Peter will shew his attention by stroaking it. He is not a great eater. At dinner, he is commonly content with a bit of pudding or meat. He is fond of water; after he has drunk his breakfast of tea, or even of milk, he will often go out to the pump, and drink several draughts of water. He is not fond of beer; and, till lately, he would not drink it: But he is very fond of all kinds of spirits, particularly gin; as he is also of onions, which he will eat like apples. He does not often go out without his master; but he will sometimes go to Berkhemstead, and call at the gin-shop. They always know his errand, and will treat him. It is one of the most powerful means to persuade him to do any thing with alacrity, to sing with spirit, &c.: Hold up a glass of gin, at the time you tell him to sing better and louder, and he will undoubtedly smile and raise his voice. He cannot bear the taste of physic, nor the sight of an apothecary who once attended him. He will not take physic, but under some great disguise, such as gin.

“ If he hears any music, he will clap his hands, and throw his head about in a wild frantic manner. He has a very quick sense of music, and will often repeat a tune after once hearing. When he has heard a tune, which is difficult, he continues humming it for a long time, and he is very uneasy till he is master of it. He can sing a great many tunes; and will always change the tune when

the *name only* of another tune, with which he is acquainted, is mentioned to him. He does not always hit upon the tune at once which is asked, but he corrects himself easily with the least assistance.

“He understands every thing that is said to him by his master and mistress ; and shows, by his countenance, that he knows when you are talking of him ; but, in general, he takes very little notice of any thing, which does not attract his notice by its finery, smoothness, &c. While I was with him, the farmer asked several questions, which he answered rapidly, and not very distinctly, but sufficiently so as to be understood even by a stranger to his manner. Some of the questions were, Who is your father ?—King George. What is your name ?—Pe-ter ; (he always pronounces the two syllables of his name with a short interval between them). What is that ?—Bow-wow, (for the dog). What horse will you ride upon ?—Cuckow ; (This is not the name of any of their horses, but it is a name with which he always answers that question ; perhaps it was the name of one of his former master’s horses). What will you do with this ? (tea, gin, &c.)—He will put his hand to his mouth. If you point to his beard, nose, or mouth, and ask what is that, he will tell you plainly. His answers, I think, never exceed two words ; and he never says any thing of his own accord. I forgot to mention, that he has been taught also to say, when he is asked, What are you ?—Wild man. Where were you found ?—Hannover. Who found you ?—King George. If he is told to tell twenty, he will count the number exactly on his fingers, with an indistinct sound at each number ; but, after another person, he will say, one, two, three, &c. pretty distinctly.

“ Till last spring, (1782), which was soon after his illness, he always shewed himself remarkably animated by the influence of the spring,

spring, and would sing all day long, and, if it was clear, half the night. He is very much pleased with the appearance of the moon and the stars. He will sometimes stand out in the warmth of the sun, with his face thrown up to it, in a very difficult and strained attitude; and likes to be out in a starry night, if it be not cold. Upon hearing this, a person would naturally inquire, whether he has, or appears to have, any idea of the great Author of all these wonders? Indeed, I thought it a question of so much curiosity, that, when I had left Broadway for several miles, I rode back to inquire whether he had at any time betrayed the least sense of a Superior Being. They told me that, when he came into that part of the country first of all, he was sent to school for some time, and different methods were employed to teach him to read, and with it the principles of religion; but all in vain: He learnt nothing; nor did he ever show any consciousness of a God from his own feelings.

“ He is very fond of fire? and is often bringing in fuel, which he would heap up as high as the fire-place would contain it, if he was not prevented by his master. He will sit in the chimney corner, even in the midst of summer, while they are brewing with a very large fire, which is sufficient to make another person faint who sits there long. He will often amuse himself, by setting five or six chairs before the fire, and placing himself in every one of them in their turns, as his love of variety prompts him to change his place.

“ He is extremely good tempered, except in cold and gloomy weather; for he is very sensible of the change of the atmosphere. He is not easily provoked; but, when he has been made very angry by any one, he would run after them, making a strange noise, with his teeth fixed into the back of his hand. I could not find that he had ever done any violence in the house, except that when he first

came over, he would sometimes tear his bed clothes to pieces, which it was long before he was reconciled to. He has never, (at least since his present master has known him); shown any attention to women ; and I am told he never did, except when he was purposely and jocosely forced into an amour.

“ He has run away several times since he has been at Broadway, but not since he has been with his present master. He was taken up for a spy in Scotland, in 1745, or 1746 : As he was unable to speak, they supposed him obstinate, and he was going to be confined, and was threatened with punishment for contumacy ; but a Lady, who had seen him in England, told them who it was, and directed them where to send him. Some say he was found at Norfolk. When he ran away from his masters, he used to live on raw herbage, berries, and young tender roots of trees. The old people at the *Two Waters* told me a circumstance, which, as they could not, I think, have collected from his information, may have only the authority of conjectural tradition, that, when he ran away, he always followed the course of the clouds.

“ Of the people who are about him, he is particularly attached to his master. He will often go out with him and his men into the field, and seems pleased in being employed in any thing which can assist them. But he must always have some person to direct his actions, as you may judge by the following circumstance. Peter was employed one day with his master in filling a dung-cart. His master had occasion to go into the house for something, and left Peter to finish the work. The work was soon done. But Peter must have something to employ himself ; and he saw no reason why he should not be as usefully employed in emptying the dung out as he was in putting it into the cart. When his master came out, he found the
cart

cart nearly emptied again; and learned a lesson by it, which he never afterwards neglected.

“ These were all the circumstances which I was able to collect; and I shall be happy if they afford you any satisfaction.”

From this account of him, it is evident that he is not an idiot, as some people are willing to believe him to be, but such a man as one should expect a mere savage to be, that is, a man that has not the use of speech, and is entirely uninstructed in all our arts and sciences. What alone can induce any one to believe him an ideot, is that he has not learned in so long a time to speak, though he was sent to school, and, as it is said, much pains taken upon him. But, in the *first place*, it is to be considered that he was about fifteen, as the Newspapers say, when he was caught and brought to England, and much older, if we believe the account of his age given by the farmer, with whom he lives. Now, though articulation be learned by infants, whose organs are tender, soft, and pliable, by imitation only, or at least without much trouble in teaching them, yet, when they grow up, and their organs become hard, and less flexible, they cannot learn by imitation merely, nor by teaching without much difficulty, if at all, as is evident from the case of those who have been brought up in civilized nations, and accustomed to speak from their infancy, and yet cannot pronounce certain articulate sounds, because they have not learned to do it when they were infants. Thus, a Frenchman, as I observed before, cannot pronounce the Greek *o*, or the English *th*, nor an Englishman the aspirated *kappa*, of the Greeks, that is the *x*.

2do, The schooling, that Peter got, was not such as, I think, could have taught him to speak when he was so far advanced in life, if he had had the best natural parts, and a greater disposition to learn,
than

than can be expected in any Savage, who, not perceiving the immediate utility of speech, either for sustenance or self-defence, will not be disposed to take so much trouble as is necessary to learn an art so difficult to be learned, especially at an advanced time of life. And, therefore, I rather wonder, that, at a common country school, such as Peter was put to, he has learned so many words, many more than I thought he had known, till I got this information from Mr Burgefs : And it appears that he has learned also the use of numbers to a certain degree ; and his progress in music would appear to me very wonderful, if I did not know that music was much more natural to Man than articulation. But, even with respect to it, I can have no doubt, but that, if he had been taught by such a master as Mr Braidwood, he would long before now have spoken very perfectly. But, even from Mr Braidwood, he could not have learned by imitation merely, nor even by precept ; for Mr Braidwood must not only have shown him, by his own example, the position and configuration of the organs necessary for pronouncing such and such sounds, but he must have laid hands upon him, as he does upon his deaf scholars, and put his organs in the proper position, at least as many of them as he could reach in that way.

As to Religion, I think it is impossible that an animal, whose Intellect is only forming, and not yet formed, can have any notion of a Deity, which certainly does not belong to the Animal but to the Intellectual Nature : So that all we can say of the religion of a perfect Savage is, that he has the capacity of being religious, as well as of becoming an intelligent creature ; and, therefore, it might be added, if it were necessary, to the Peripatetic definition of a man, *that he is capable of religion, as well as of intellect and science.*

The only objection of any weight to the credibility of what is related of Peter in his wild state in the Newspapers, is, that it is said
he

he fed upon grafs, and mofs of trees *. Of this objection I have taken notice already † : And I will add here, that thofe who maintain that Man cannot live upon herbage, or vegetable food of any kind, appear to me to confound the Man of God and Nature with the artificial animal he has made himfelf, and to be as ignorant of the hiftory as the philofophy of Man. Diodorus Siculus relates that the firft men in Egypt ate grafs and roots that grew in the marfhes : and there is one root particularly that he names, and calls it *agrostis*, upon which he fays cattle fatten, and which, in thofe very antient times, nourifhed men : And the memory of that food was preferved, even in his time, in Egypt ; for men, when they prefented themfelves before the Gods, had of that herb in their hands. And it was not, he fays, till later times, that Ifis taught them the ufe of the *lotus* for bread ; the memory of which was alfo preferved in all the monuments of that Goddefs. Befides thefe facts, of fo great antiquity, but which, I am perfuaded, Diodorus relates from good information, and were confirmed, as I have juft now faid, by rites and ceremonies, praftifed in his time, he informs us of what muft have fallen under his own obfervation, that the children in Egypt fed upon reeds, and other aquatic plants, which grew in the river and marfhes ‡. And not only in Egypt, but in India, as Arrian relates upon the authority of Megafthenes, who appears to have known more of India than any man of the antient world, the Indians, before they were civilized and taught arts by Bacchus, fed upon the barks of trees : And, in later times, as late as when Megafthenes wrote, he fays that the Gymnofophifts fed in the fame way §. And, in Arcadia, Paufanias relates, that,

* Page 58. of this Volume..

† Page 66.

‡ See Volume Firft of the Origin and Progreff of Language, p. 605.. of the Second Edition.

§ Arrian's *Indica*, p. 325.

that, as Isis first taught the Egyptians to eat *lotus*, so Pelasgus first taught the Arcadians to eat *beech mast* *.

To come down to later times, Dion Cassius, the Roman historian, who gives us the best account of North Britain that we have from any antient author, having probably been there with the Emperor Severus, whose secretary he was, relates that the antient Caledonians fed in part upon the bark of trees †. And, even among civilized nations, such as the Romans, it appears to have been understood that men could live upon that food : For Caesar's soldiers, when they were besieging Pompey at Dyrrachium, and very hard put to it for want of provisions, said that they would rather live upon bark of trees, than suffer Pompey to escape ‡. And, to come down to our own times, Captain Cook relates that the people of New Caledonia used for food the bark of a certain tree, which his people tasted, and did not find disagreeable.

I have been told that the anatomy of a man shows that he cannot subsist upon herbage, or upon bark of trees. But this I hold to be a mistake ; at least, I have met with no anatomist who would undertake to show there was such a difference betwixt the anatomy of a horse and of a man, that a horse could subsist upon herbage, but not a man ; and, if the anatomists were of another opinion, I should have a great scruple, upon nice anatomical observations, to reject facts so attested as those I have mentioned. If, therefore, it had been said, that he only fed upon herbage, and the moss or barks of trees, it would not have been at all incredible. But that is not said : So that we must suppose, that when he could find fruits or
roots,

* Pausanias, Lib. viii. in initio.

† Lib. 76. cap. 12.

‡ *De Bello Civili*, Lib. iii. Cap. 41.

roots, he would feed upon them likewise; and, accordingly, as to roots, Dean Swift, in the account above mentioned, says that he was so expert in finding truffles, that a dog was an afs to him*.

Setting aside, therefore, the testimony, both of antient authors and modern travellers, I think these two instances, the one of the Orang Outang child, whom we must believe to be a human creature, if we give credit to what Mr Buffon relates, or, if we will not go so far as even to France for information concerning our own species, the other of Peter the Wild Boy, whom every one among us may see with his own eyes, must convince even those, who believe nothing of antient times or remote countries, that men are not, nor have not been always the same, in all ages, and all nations, such as we see them at present in Europe—As to the philosopher who knows that we are compounded of two substances quite distinct, the Animal and Intellectual Mind, he cannot have the least doubt that there is a progress in the *species* as well as in the *individual*; and that the Animal must at first predominate in both, and the Intellectual Nature be produced only at last, slowly even in the individuals among us, who learn both by imitation and teaching, but infinitely more slowly among perfect Savages, who must invent and teach themselves every thing.

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* In an Edition of Swift's works, in 1751, printed in London by C. Bathurst, I find that the account of Peter is said to be the work of Dr Arbuthnot, which should give it an additional credit, as he had the keeping of him; and, as there is not the least insinuation there that he was an idiot, I am convinced that no man, at that time, believed so; nor do I think it is possible that any man who sees him at present can be of that opinion. The fact which Mr Burge's observes of his first filling a dung cart, and then emptying it, only shows that he knew nothing of farming: And, as that was the case, it was natural enough, that having seen a dung cart emptied, as well as filled, he should do both.

What changes we have undergone in a prior state of our existence, and whether we have risen in that state, or fallen to what we now are, and what progress we are to make in the life to come, are speculations which do not belong to this part of my work.

F I N I S.

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